ELMO

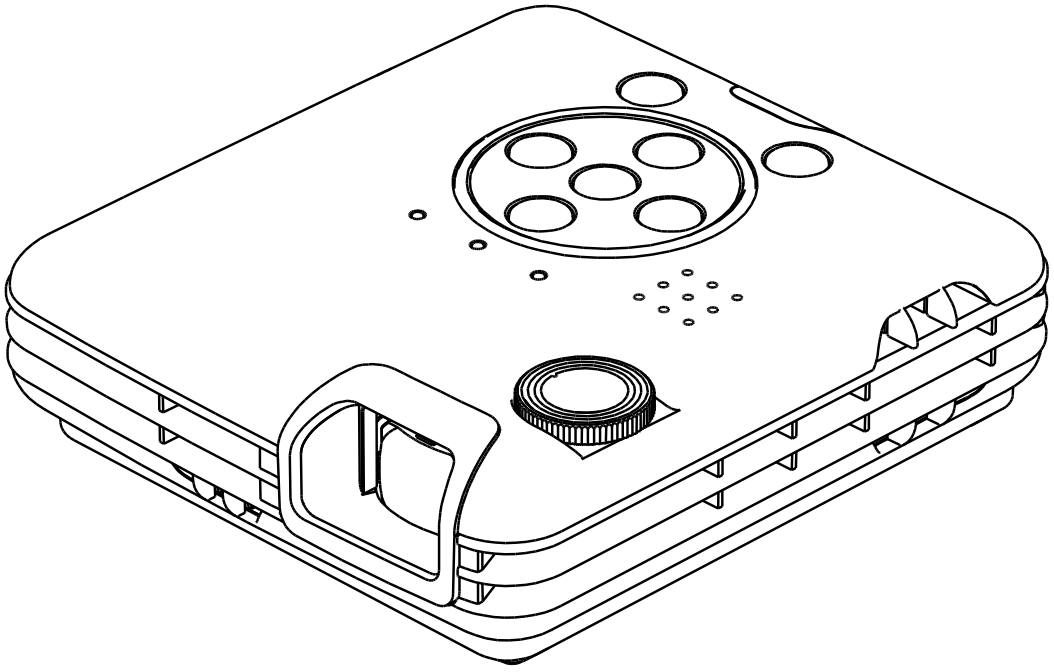
BOXi MOBILE PROJECTOR

MP-350 (Ver.2)

Instruction Manual

Master Operation Guide

English



- Read the separate “Instruction Manual -Network Operation Guide” and the separate “IMPORTANT SAFEGUARD” carefully before using the projector.
- Refer to the separate “Instruction Manual - Network Operation Guide” for the operations of a Wireless LAN (WiFi)
- Keep this guide in a safe place for future reference.

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IMPORTANT SAFEGUARDS

■ Read Instructions

All the safety and operating instructions should be read before the appliance is operated.

■ Retain Instructions

The safety and operating instructions should be retained for future reference.

■ Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

■ Follow Instructions

All operating and use instructions should be followed.

■ Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

■ Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

■ Water and Moisture

Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

■ Placement

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product.

Any mounting of the product should follow the manufacturer’s instructions, and should use a mounting accessory recommended by the manufacturer.

■ Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered.

The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer’s instructions have been adhered to.

■ Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home consult your appliance dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

■ Grounding or Polarization

This product may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin.

Should read “If the 2-wire polarized plug fails to fit in the outlet, try reversing the plug”. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. The 3-wire grounding type plug will fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

■ Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

■ Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

■ Overloading

Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

■ A product and cart combination should be moved with care.

Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

■ Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

■ Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

■ Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance - this indicates a need for service.

■ Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

■ Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

■ Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

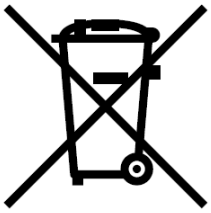
CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

SA 1965

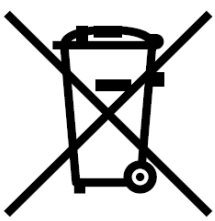
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

SA 1966

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



This symbol [crossed-out wheeled bin WEEE Annex IV] indicates separate collection of waste electrical and electronic equipment in the EU countries.
Please do not throw the equipment into the domestic refuse.
Please use the return and collection systems available in your country for the disposal of this product.



This symbol [crossed-out wheeled bin Directive 2006/66/EC Annex II] indicates separate collection of waste batteries in the EU countries. Please do not throw the batteries into the domestic refuse. Please use the return and collection systems available in your country for the disposal of the waste batteries.

BEFORE YOU USE

- The supplied power cord and AC adapter are designed for exclusive use with this product. Do not use them with other equipments.
- Be sure to use the power cord applicable to your local power specifications. If the product was sold in Japan, use the AC adapter sold with the product with 100VAC and 50 or 60 Hz.
- Do not knot or coil the power cord or AC adapter cord or wrap them around the AC adapter. Doing so may damage the cords, causing fire or electric shock.
- Carry this product by holding the lower part of the main unit in both hands. Do not apply excessive vibration or shock on the product. By doing so may damage parts causing malfunction.
- Do not apply vibration or shock during the projection. Do not use this product in a car or ship where vibration or shock is applied to the product. The vibration or shock may damage parts causing malfunction.
- Do not use this product near high-voltage power lines or power source. The product may receive harmful interference.
- Do not use this product in locations subject to humidity, dust, smoke, oil smoke or steam. Dirt may attach to the optical parts such as lens causing unclear image.
- Do not use this product in locations exposed to extreme temperature or locations where the temperature changes too quickly.
  Use this product under the following environmental conditions:
  Temperature: 5℃ ~ 35℃ Humidity: less than 85%(No condensation)
- When the product is suddenly brought into a warm place from a cold place or when the room temperature is quickly raised, condensation may occur to the surface of the lens causing unclear image. Wait until the condensation is completely gone and the image becomes clear.
- Do not touch lens. It may leave fingerprint which results in blurred image.
- Depending on the type of the USB flash drive, the operation may not be guaranteed.
- Transfer the data from the USB flash drive onto a device such as a computer to save a backup copy. Malfunction of the product or repairs to it may cause the data saved in the USB flash drive to be deleted.
- Important notes when connecting HDMI cable.
  • Use HIGH SPEED HDMI cable with HDMI logo.
  HDMI cable that is not compliant with HDMI standard may not be used.
  • Do not apply excessive force to the HDMI terminal while the cable is connected to the HDMI terminal. It could damage the HDMI terminal, leading to a malfunction.

■ Follow the guidelines below to prevent the product from dropping or overturning.
  • Use the product on a stable base, desk, or table. Do not place the product on an unstable base or slanted location.
  • Place or wire the product to prevent the AC adapter cord or video cable from pulling.

■ Luminescent spot and black spot
  There may be some pixels that do not properly operate due to the use of image pick-up device made-up of many pixels. Though luminescent or black spots may be found on the screen, it is a phenomenon peculiar to the image pick-up device and is not a malfunction.

■ There may be some flickering on the screen when shooting a pattern image with gradual changes in brightness. It is a phenomenon peculiar to the image pick-up device and is not a malfunction.
  This product is not designed to display such kind of images.

■ There may be some image distortion for a moment when the output resolution of the connected device is changed while the image is projected. This is because the product automatically adjusts the projection settings according to the input signal. It is not a malfunction.

■ Lifetime of the parts
  Using this product in high temperature or in locations where there are a lot of dusts or smoke or using this product continuously for a long period of time for business purpose may deteriorate the product performance or quality even less than a year of usage, due to the lifetime of its parts. To purchase replacement parts or repair, contact the dealer from whom you purchased this product or branch/office near your location for chargeable repair.

Notes on the use of Wireless LAN（WiFi）

■ This product uses 2.4GHz radio waves. The wireless device in this product has been certified under the Radio Law.
  Do not use this product under the following conditions:
  -Near industrial, scientific, and medical devices, such as a pacemaker
  -Near in-plant radio station for mobile equipment identifier (license required and being used in factory line; etc.)
  -Near low power wireless base station (license not required)

■ Depending on the using environment the wireless communication may be adversely affected. Especially the wireless communication is not available when there are reinforcing steel, metal and/or concrete between the product and the equipment.

■ The frequency bandwidth permitted to be used varies depending on the radio wave regulations in each country. Using this product outside the country may be illegal.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Federal Communication Commission Interference Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

The product comply with the US/Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

Note

■ “Wireless LAN (WiFi)” is also referred to as “WiFi” in this guide.

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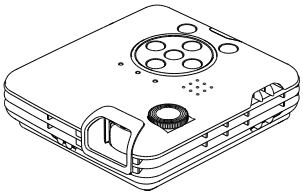
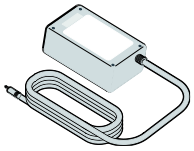
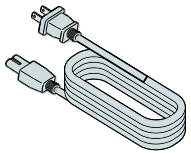
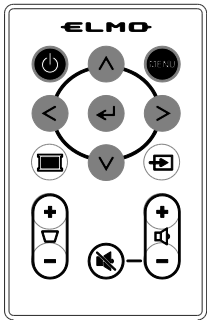
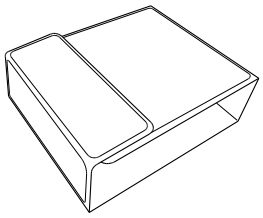
1 GETTING STARTED

CHECKING THE PACKAGE CONTENTS

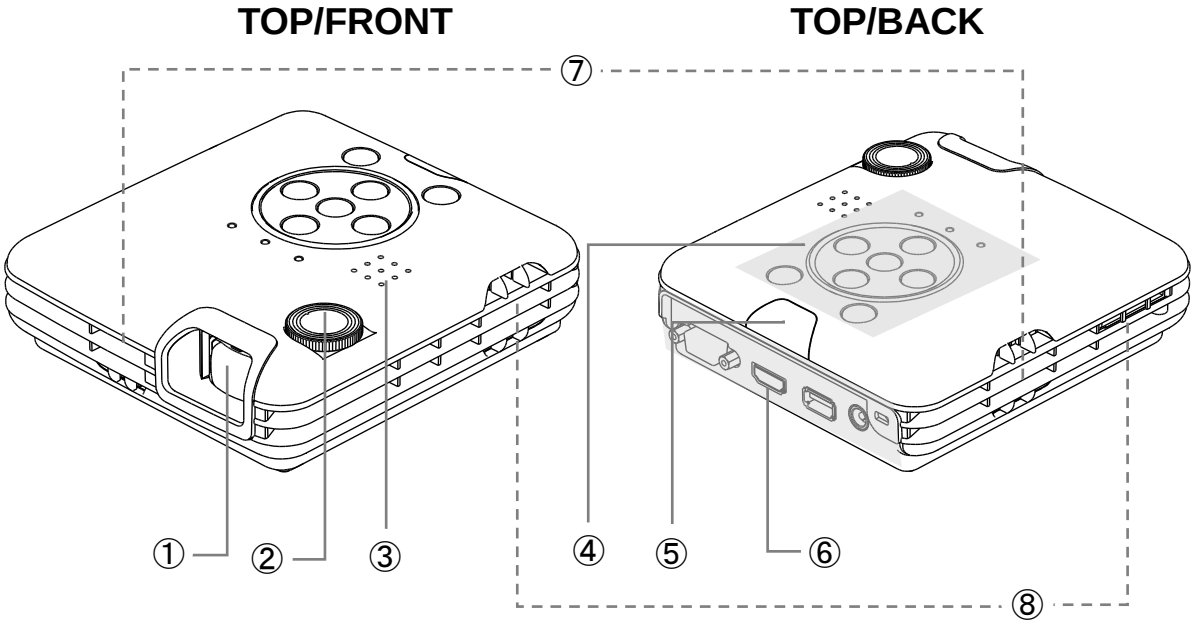
The items below are included with this product. If any item is missing, contact the dealer from whom you purchased this product.

Projector	AC adapter	Power cord	Remote control
			 *Battery included

Protective cover	IMPORTANT SAFEGUARD	WARRANTY CARD	CD-ROM
 *with Hook and loop fastener (2pcs)			*QUICK START GUIDE included

PART NAMES AND FUNCTIONS

Projector

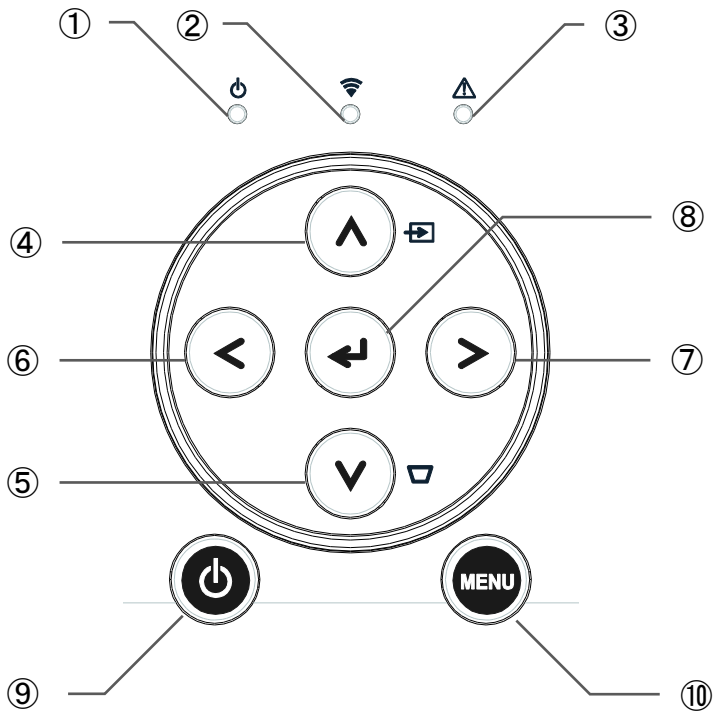


Number	Name	Function	**Related Page**
①	Lens	To project an image.	→P23
②	Focus dial	To focus the projected image.	→P37
③	Speaker	Built-in speaker.	-
④	Control panel	To control the projector.	→P14
⑤	Remote sensor	To receive IR signal from the remote control.	→P22
⑥	Rear panel	Terminal panel to connect other devices.	→P17
⑦	Intake vent	Air ventilator inlet to cool down the inside of the projector.	-
⑧	Exhaust vent	Air ventilator outlet to exhaust the air inside of the projector.	-

⚠ CAUTION

- Do not look into the lens during the projection. The strong light emitted from the lens may cause damage to your eyes. Pay attention especially when you use the projector in an environment where there are children.
- Do not touch around the exhaust vent during or immediately after the projection. The area around the exhaust vent may become very hot and could result in burn.
- Hot air may be emitted from the exhaust vent. Do not place any objects, which are easily affected by heat, in front of the exhaust vent.

Control panel



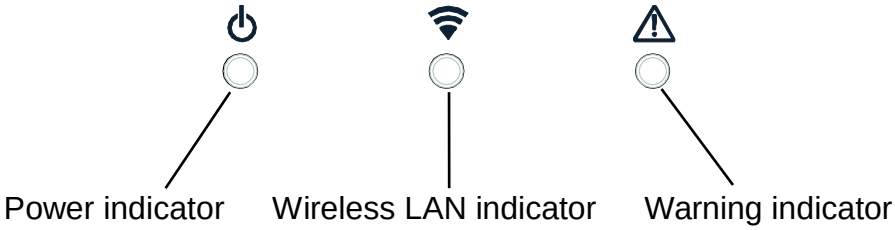
Num.	Mark	Name	Function	Related Page
①	⏻	Power indicator	The green LED turns on when the projector is turned on.	→P16
②	📶	Wireless LAN indicator	The blue LED turns on when WiFi is used or ready to be used. The blue LED flashes while the projector is trying to establish a WiFi connection.	→P16

Num.	Mark	Name	Function	Related Page
③	⚠	Warning indicator	The red LED turns on or flashes when there is something wrong with the projector.	→P16,76
④	∧ ⏎	UP button	To move the selected item upward.The “Input source select” menu appears when the “Input source standby” screen is displayed or the image is displayed on the screen. When video is projected, display volume setting screen to increase the volume.	→P36
⑤	∨ ▽	DOWN button	To move the selected item downward.The “Keystone adjustment” screen appears when the “Input source standby” screen is displayed or the image is displayed on the screen. When video is projected, display volume setting screen to decrease the volume.	→P38
⑥	<	LEFT button	To move the selected item to the left. Move to previous file/sheet when still image or Office file is projected. Fast rewind when video is projected.	-
⑦	>	RIGHT button	To move the selected item to the right. Move to next file/sheet when still image or Office file is projected. Fast forward when video is projected.	-
⑧	↵	Enter button	To execute the selected item. Enlarge projected screen when still image or Office file is projected. Pause/Play when video is projected.	-
⑨	⏻	Power button	To turn on/off the projector.	→P32, 33
⑩	**MENU**	Menu button	To display/hide the menu. To return to the previous menu without executing the selected item while operating the menu.	→P51

List of LED indicators

The 3 LED indicators on the top of the projector indicate the status of the projector by lighting up or flashing, in different colors and different flashing speeds.

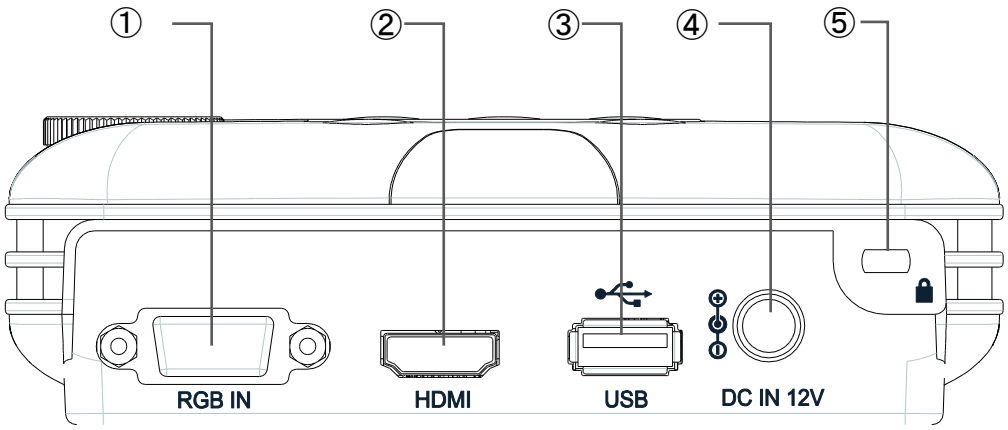
<Upper part of the Control panel>



If the warning indicator lights up or flashes, there is something wrong with the projector. Refer to “WARNING INDICATORS”(Page79) for details about actions to be taken.

Power indicator (Green)			Related Page
	On	The projector is turned on.	→P32
	Off	The projector is turned off.	→P33
Wireless LAN indicator (Blue)			
	On	A WiFi connection is established.	→P32
	Off	A WiFi connection is off.	→P33
	Flashing	The projector is now trying to establish a WiFi connection.	→P32
Warning indicator (Red)			
	On	An abnormal temperature inside the projector is detected.	→P76
	Off	The projector is in normal condition.	→P76
	Flashing *Flashing every 0.25 seconds.	There is something wrong with the internal fan.	→P76
	Flashing *Flashing every second.	Either an abnormal rise of temperature inside the projector is detected or the brightness of the LED is decreased.	→P76

Terminal panel

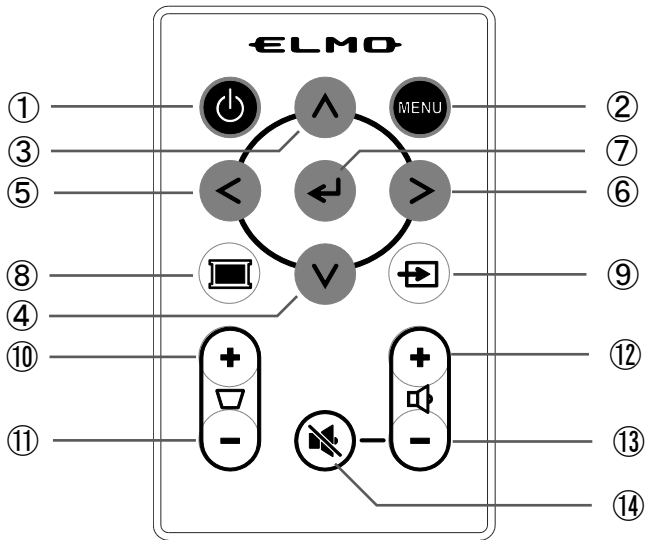


Number	Name	Function	Related Page
①	RGB IN	Analog RGB input terminal. To connect an analog RGB output device.	→P28
②	HDMI	HDMI input terminal. To connect an HDMI output device.	→P29
③	USB	To connect an USB flash drive to display or play the files stored in the USB flash drive.	→P30
④	DC IN 12V	To connect the supplied AC adapter.	→P27
⑤	🔒	Anti-theft security slot. To connect a security cable.	-

⚠ CAUTION

- Use the HIGH SPEED HDMI cable with HDMI logo.
  HDMI cable that is not compliant with HDMI standard may not be used.
- Do not apply excessive force to the HDMI terminal while an HDMI output device is connected. It could damage the HDMI terminal, leading to a malfunction.

Remote control



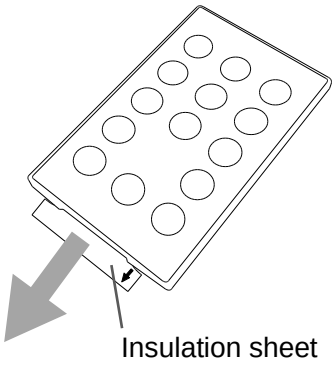
Num.	Mark	Name	Function	Related Page
①	⏻	Power button	To turn on/off the projector.	→P32, 33
②	**MENU**	Menu button	To display/hide the menu. To return to the previous menu without executing the selected item while operating the menu.	→P51
③	∧	UP button	To move the selected item upward.	-
④	∨	DOWN button	To move the selected item downward.	-
⑤	<	LEFT button	To move the selected item to the left. Move to previous file/sheet when still image or Office file is projected. Fast rewound when video is projected.	-
⑥	>	RIGHT button	To move the selected item to the right. Move to next file/sheet when still image or Office file is projected. Fast forwarded when video is projected.	-
⑦	↵	ENTER button	To execute the selected item. Enlarge projected screen when still image or Office file is projected. Pause/Play when video is projected.	-

Num.	Mark	Name	Function	Related Page
⑧		Blank screen button	To display/cancel the blank screen that temporarily hides the projected image.	→P41
⑨		Input selection button	To display/hide the “Input source select” menu.	→P35
⑩		Keystone ＋button	To increase the projection angle.	→P38
⑪		Keystone －button	To decrease the projection angle.	→P38
⑫	＋	Volume＋ button	To increase the volume of the built-in speaker.	→P40
⑬	－	Volume－ button	To decrease the volume of the built-in speaker.	→P40
⑭		MUTE button	To temporarily mute the sound.	→P41

Preparing the remote control

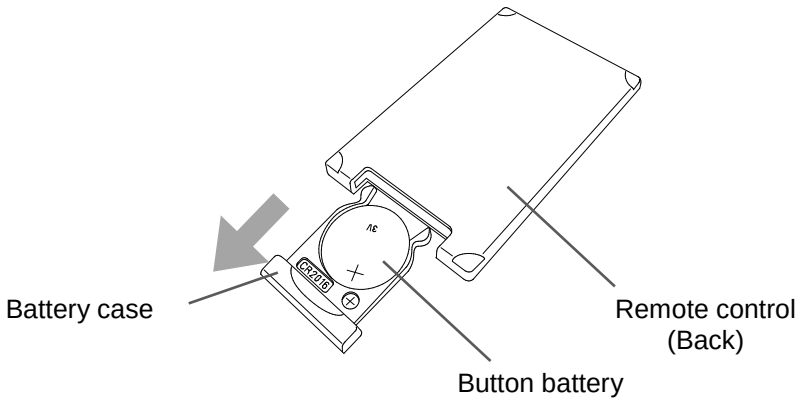
When purchased

1. A battery is pre-installed in the remote control at the time of shipment (with insulation sheet).
   Remove the insulation sheet before using the remote control for the first time.



How to change the battery

1. Pull out the battery case.
2. Take out the old button battery and put the new button battery on the battery case with the "+" side facing up.
3. Insert the battery case to the remote control.



Note

■ Use the button battery type CR2016 for the remote control.

⚠ CAUTION

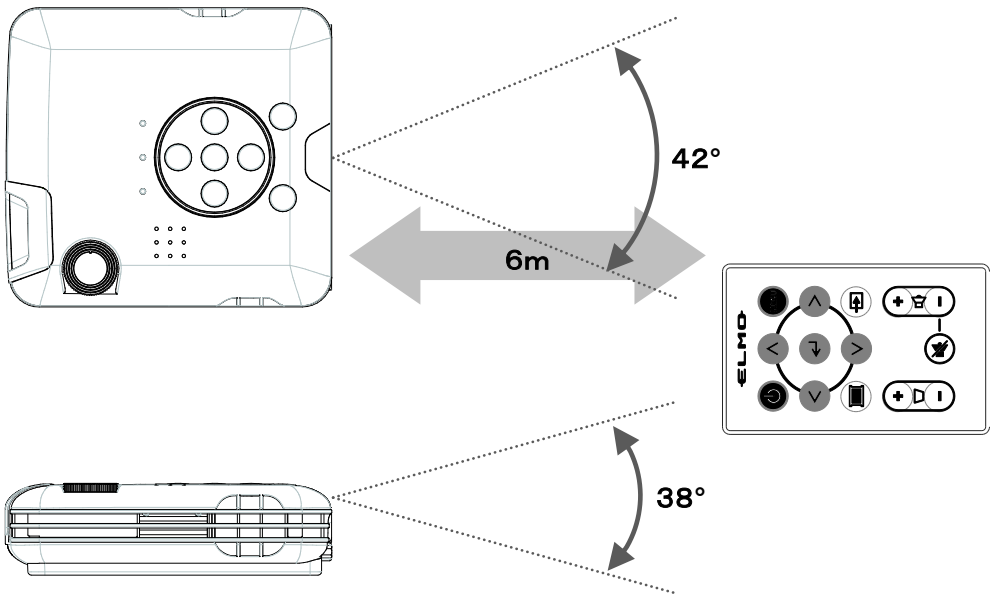
- Improper use of the battery may lead to electrolyte leakage or bursting and may cause fire, injury or corrosion to the remote control. Observe the following precautions for safety use of the product.
  - Do not use any battery other than specified.
  - If the battery leaks, wipe off the leaked electrolyte with a cloth and install a new battery. If the leaked electrolyte contacts your skin, immediately wash it away with running water.
  - When the time to replace the battery comes, immediately remove the battery.
  - Remove the battery from the remote control when you do not use the remote control for a long period of time.
  - Do not heat the battery or throw into fire.
  - Do not reverse the positive (+) and negative (-) terminals.
  - When disposing the battery, follow the recycling or disposal regulations in your community.
- Keep the battery removed from the remote control out of reach of children.
  The battery could choke children if swallowed.

Operating range for the remote control

Aim the IR transmitter of the remote control at the IR receiver on the back of the projector to control the projector.

Use the remote control within its operating range as described below.

Operating



Note

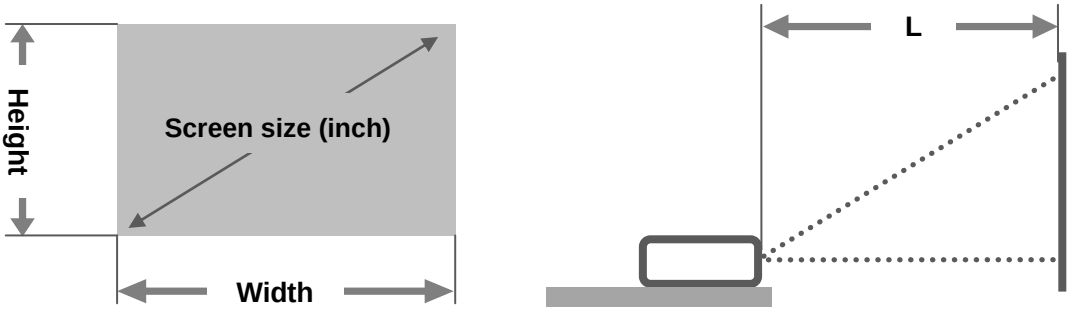
- Do not place any objects between the remote control and the IR receiver. The remote control transmits IR signals and the projector will not respond if there are objects between the remote control and the IR receiver.
- The strong light such as direct sun light or
- The remote control may not work correctly if strong light (such as direct sun light) or light from an extremely close range (such as from an inverter fluorescent lamp) shines on the IR receiver of the projector. Keep such light sources away from the projector.

INSTALLING THE PROJECTOR

Throw distance and screen size

Decide the position to place the projector.

The distance between the projector and the screen should be between 48cm (screen size: 25 inch) and 133 cm (screen size: 68 inch).



Screen size			Projection distance
Inch	Width (cm)	Height (cm)	L(cm)
25	53.8	33.7	48
30	64.6	40.4	58
35	75.4	48.0	68
40	86.1	53.8	78
45	96.9	60.6	88
50	107.7	67.3	98
55	118.5	74.0	108
60	129.2	80.8	118
65	140.0	87.5	128
68	146.5	91.5	133

Note

- The values in the fable are design values and may vary. Use them as an indication only.
- The aspect ratio of the projected image in full screen is 16: 10. When the aspect ratio of the input signal is different from 16: 10 (such as 16: 9 or 4: 3), top and bottom or left and right of the image will not be displayed and the screen size becomes smaller than those specified in the above table.

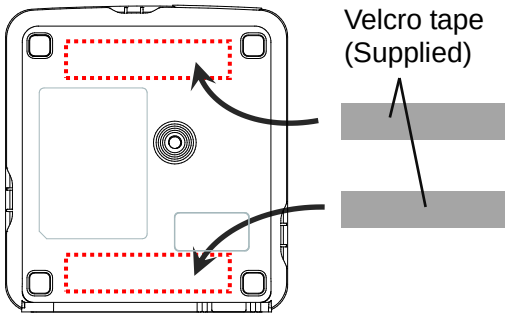
Using the protective cover

The followings are the instructions on how to install and use the supplied protective cover.

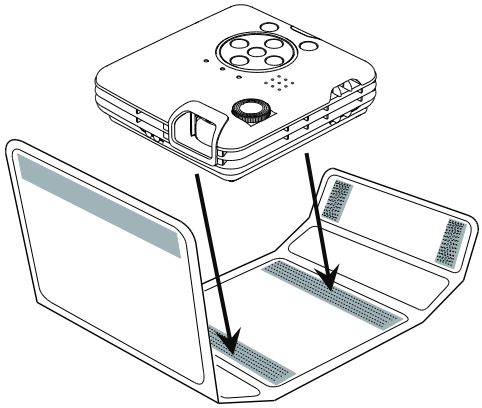
The protective cover can be used as a projection stand as well as a protection cover for the projector.

How to install the protective cover

① Attach the supplied Velcro tape to the bottom of the projector (marked in red dotted lines).



② Place the projector on the cover as shown in the below picture.
(Fix the projector with Velcro tape.)

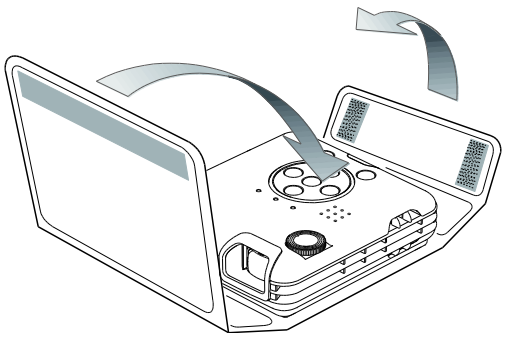


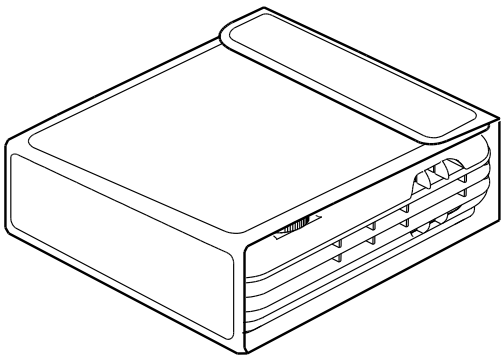
Note

■ The Velcro tape may not be able to maintain its holding power if there are foreign objects on the attachment surface, such as dust, water or oil. Clean the attachment surface before attaching the tape.

How to use the protective cover

Cover the projector to protect it from damage.

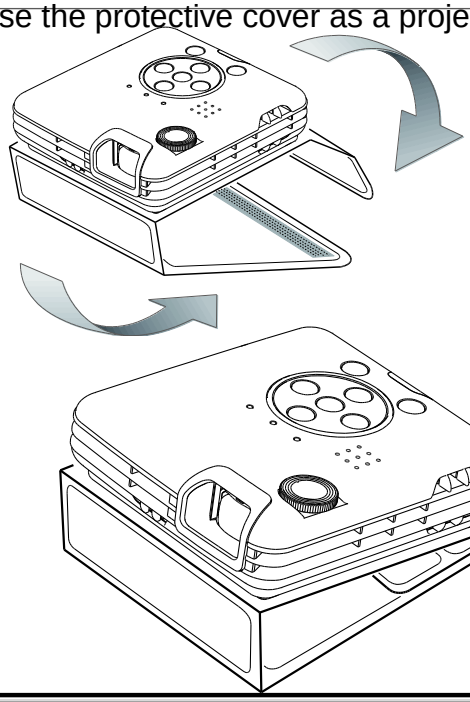




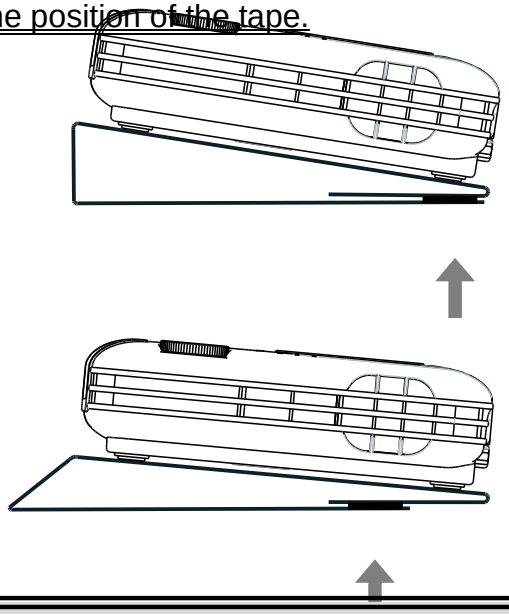
⚠ CAUTION

- Be sure to firmly hold the bottom of the projector and avoid applying an excessive vibration or impact when you carry the projector with the protective cover. The projector may slip out of the cover and drop to the ground, causing malfunction of the projector.
- Do not use the projector with the protective cover on it.
  Doing so can cause the protective cover to get extremely hot, and possibly resulting in burn or injury.
- The projector will remain hot for a while after it is turned off. Put the protective cover on the projector after it is cooled down. Otherwise, the projector may become defective.

Use the protective cover as a projection stand.



◎Change the projection angle by adjusting the position of the tape.



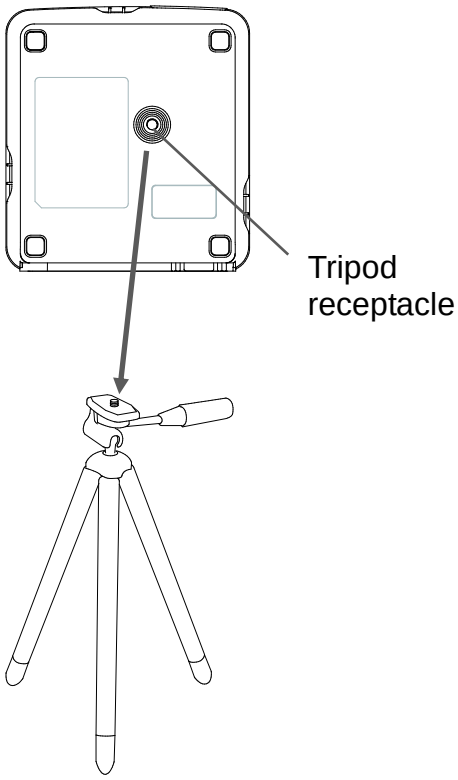
⚠ CAUTION

- When using the protection cover as a projection stand, observer the following precautions for safety use of the projector.
  - Do not look into the lens while the projector is being used. Strong light is emitted from the projector's lens. If you look directly into this light, it can hurt and damage your eyes. Be especially careful not to let young children look into the lens.
  - Do not touch the ventilation outlet as it can become heated while the projector is turned on and immediately after the projector is turned off.

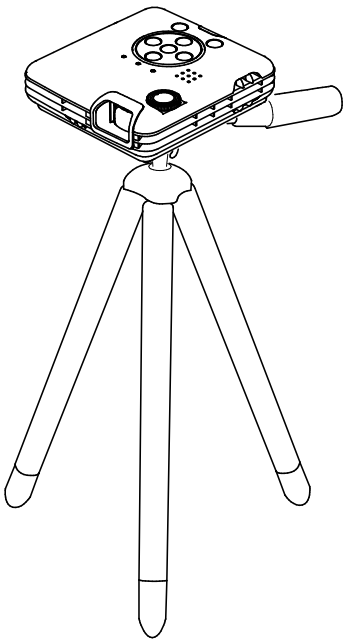
Using a tripod for a camera

The projector is equipped with a tripod receptacle on the bottom of the projector. You can mount the projector on a tripod for a camera.

●Bottom of the projector



●When mounted on a tripod



Note

- Use a tripod that can support 500g or more.
- Fully spread the legs of the tripod. In case of using a tripod with an elevating column, do not extend the column when mounting the projector.

⚠ CAUTION

- Refer to the instruction manual of the tripod for instructions on the use of the tripod. Place the tripod in stable condition. Otherwise, it may tip over, causing injury.
- When connecting the cables (such as the power cord, RGB cable or HDMI cable), make sure that nobody can trip over the cables. Otherwise, the projector may fall or tip over, causing injury.

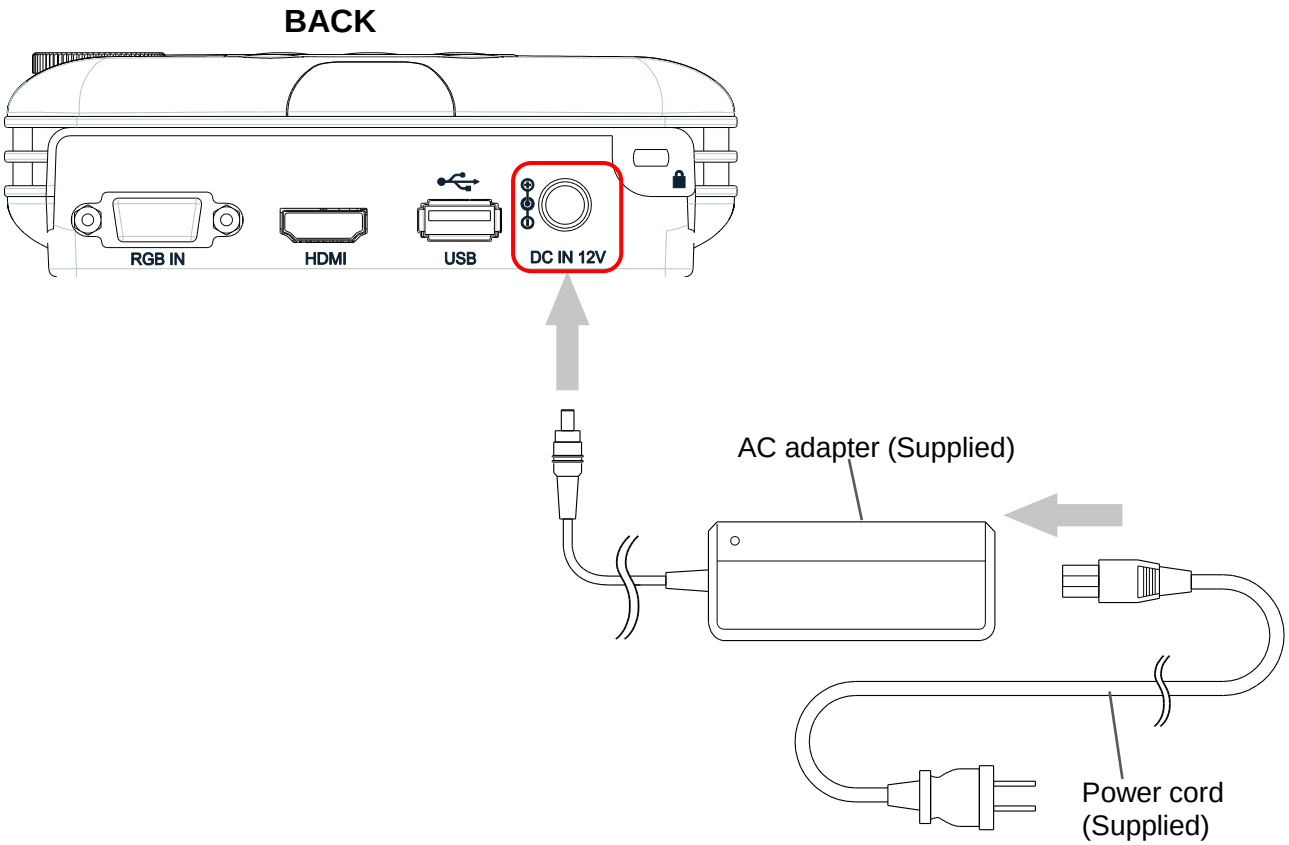
CONNECTING TO THE DEVICES

Connecting the power (AC adapter and power cord)

Connect the supplied AC adapter and the power cord, and then firmly connect to the DC IN 12V

of the projector.

Then insert the other plug of the power cord securely into the wall outlet.



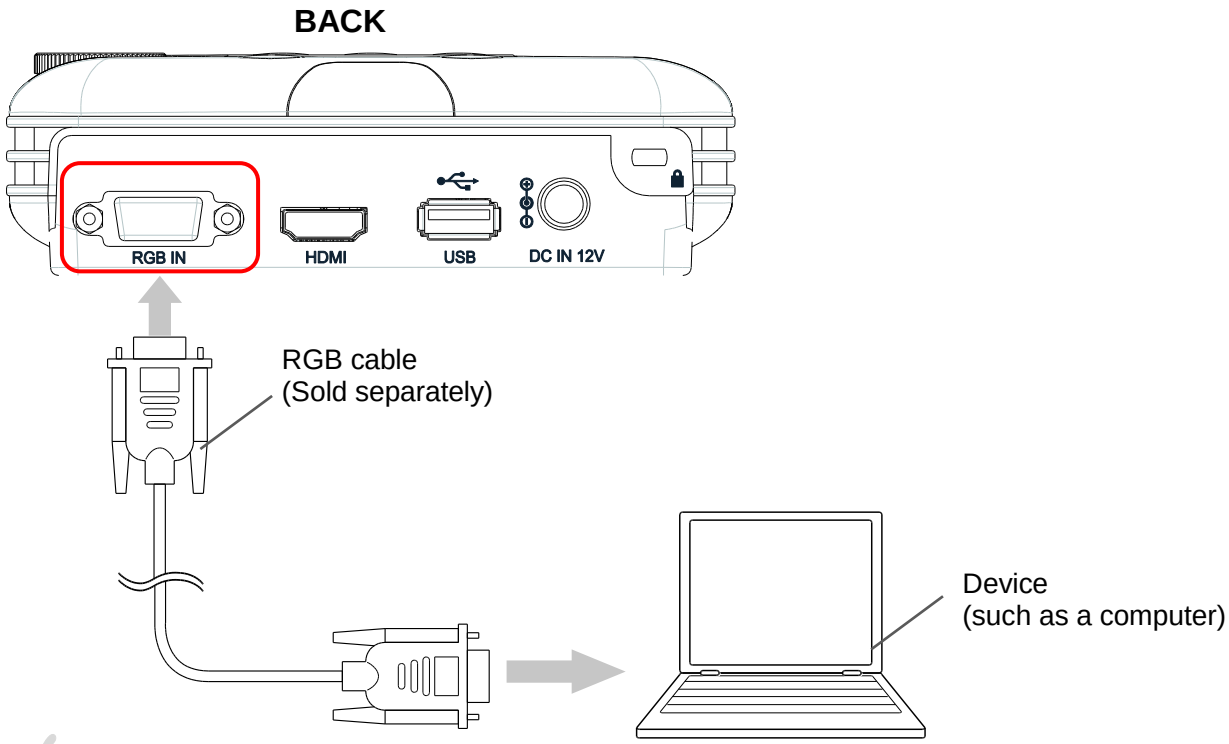
⚠ CAUTION

- The supplied AC adapter and power cord are for use with the projector only. Do not use with other devices.
- Do not place the projector on carpet, cushions or bedding and do not cover the projector with a cloth or tablecloth. Doing so will increase the temperature of the projector and may cause fire or malfunction.
- The supplied AC adapter may become hot during normal operation. This is normal. Do not continue to touch the adapter for a long period.

Connecting to RGB IN terminal

1. Connect the projector to a device such as a computer using RGB cable.

Connect the RGB output terminal (MiniD-sub 15p) of your device such as a computer to the RGB IN terminal of the projector using an RGB cable (sold separately) as shown in the below picture.
After firmly inserting the cable into the connector, tighten the screws on the connector.



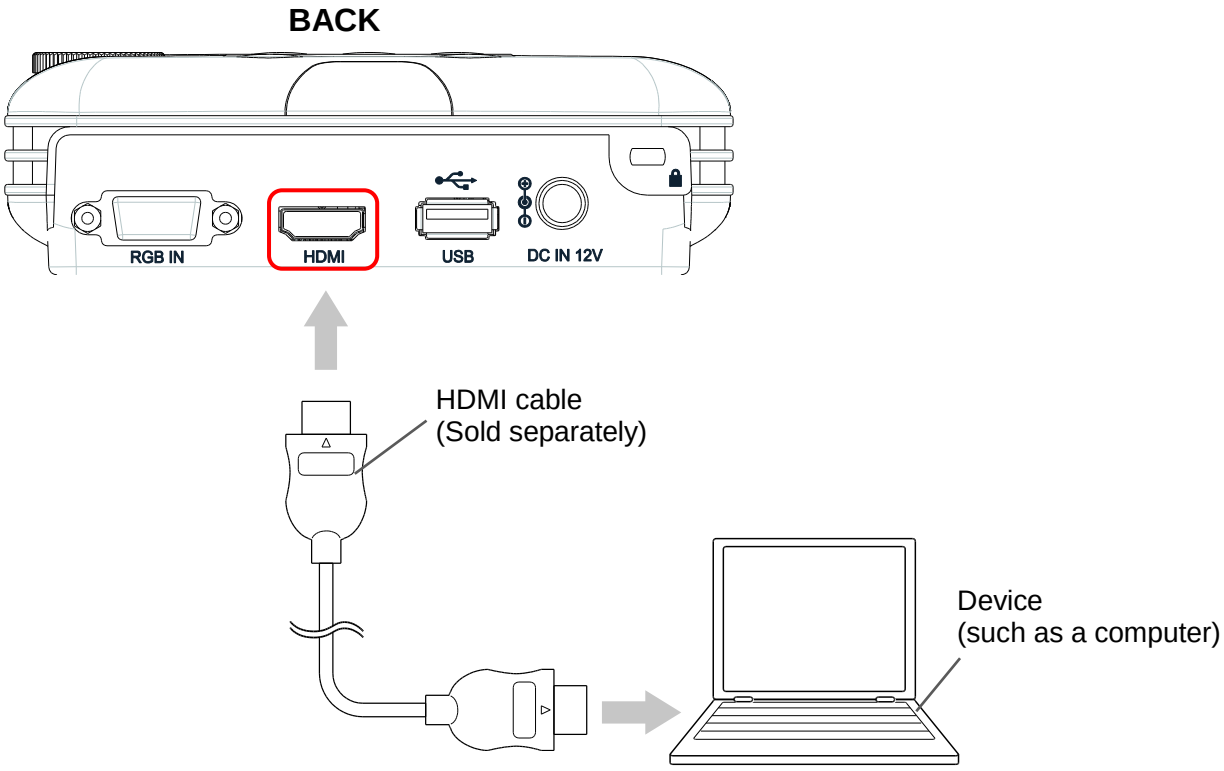
Note

- The aspect ratio of the projected image may not be correct depending on the video format that is input to the RGB IN terminal.
  In such cases, change the setting from the display setting menu or change the resolution of the device connected to the projector.
- If no image is displayed on the screen when connecting a notebook computer, set the computer so that it can output RGB signals externally.
  The setting procedure varies depending on the type of the computer.
  Refer to the instruction manual of your computer.
  - Operation of notebook computer
    Either is pushed Fn+F1~F12 (*Depending on the model.)
- No sound will be output from the built-in speaker when a device is connected to the RGB IN terminal. If you want sound, use a speaker with amplifier.

Connecting to HDMI terminal

1. Connect the projector to a device such as a computer using HDMI cable.

Connect the HDMI output terminal of your device such as a computer and HDTV to the HDMI terminal of the projector using an RGB cable (sold separately) as shown in the below picture. Firmly insert the cable into the connector.

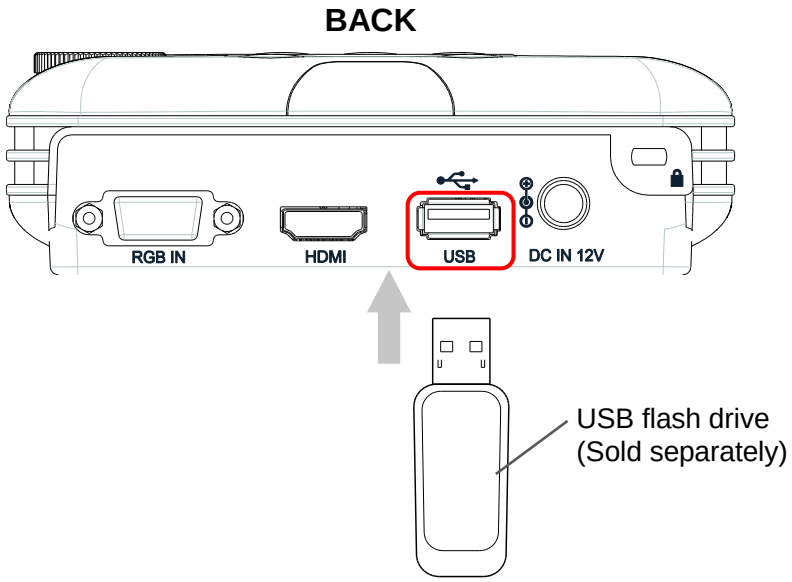


⚠ CAUTION

- Use the HIGH SPEED HDMI cable with HDMI logo.
  HDMI cable that is not compliant with HDMI standard may not be used.
- This projector complies with HDMI standard. However, we do not guarantee the operation with all the output devices.
- Do not apply excessive force to the HDMI terminal while an HDMI output device is connected. It could damage the HDMI terminal, leading to a malfunction.

Connecting a USB flash drive

Connect a USB flash drive to the USB terminal of the projector.



Note

- The projector does not recognize a USB flash drive when a USB hub is used.
- Only use a USB flash drive that has been formatted in FAT16 or FAT32.
- The video may not be played correctly when a low speed USB flash drive is used.
- Some data files that are stored in a digital camera may not be displayed by connecting the digital camera to the projector (in mass storage mode) with a USB cable.
- Refer to page 42 for the information on the “3 USB VIEWER”.

⚠ CAUTION

- Always make a back-up of the data that you have saved to the USB flash drive. The data in the USB flash drive may be accidentally deleted by malfunction or repair of the projector.
- Some USB flash drives may not be used with the projector.
- Do not remove the USB flash drive while it is in operation. Otherwise, the USB flash drive or the files in the USB flash drive may be damaged.

Connecting using wireless LAN

1. You can project Office documents (Word, Excel, PowerPoint), PDF files or images using the proprietary application software "BOXi Air" (a client software) installed in smartphones/tablets.

[Supported devices]

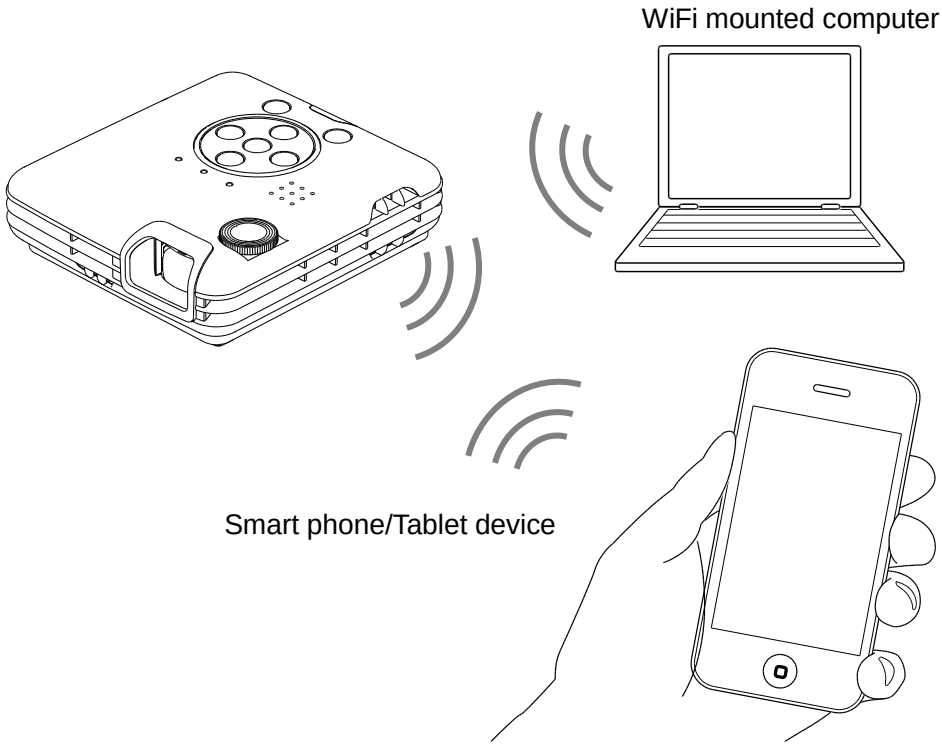
iPhone / iPad iPod touch	iOS 4.0 or higher
Android cell phone/tablet	Android OS

2. You can project a computer screen using the proprietary application software "BOXi Play" (a client software) installed in computers.

[Supported devices]

WindowsOS WiFi mounted computer: XP-SP2/3, Vista, 7, 8(32 / 64bit)

Mac OS WiFi mounted computer: MAC OS 10.5 or higher



Note

■ Refer to the separate "Instruction Manual - Network Operation Guide" for the network operation with smartphones/tablets and computers via WiFi to project data source by the projector.

⚠ CAUTION

■ Read the precautions described in “Notes on the use of Wireless LAN（WiFi）” in page 7 before using the WiFi function.

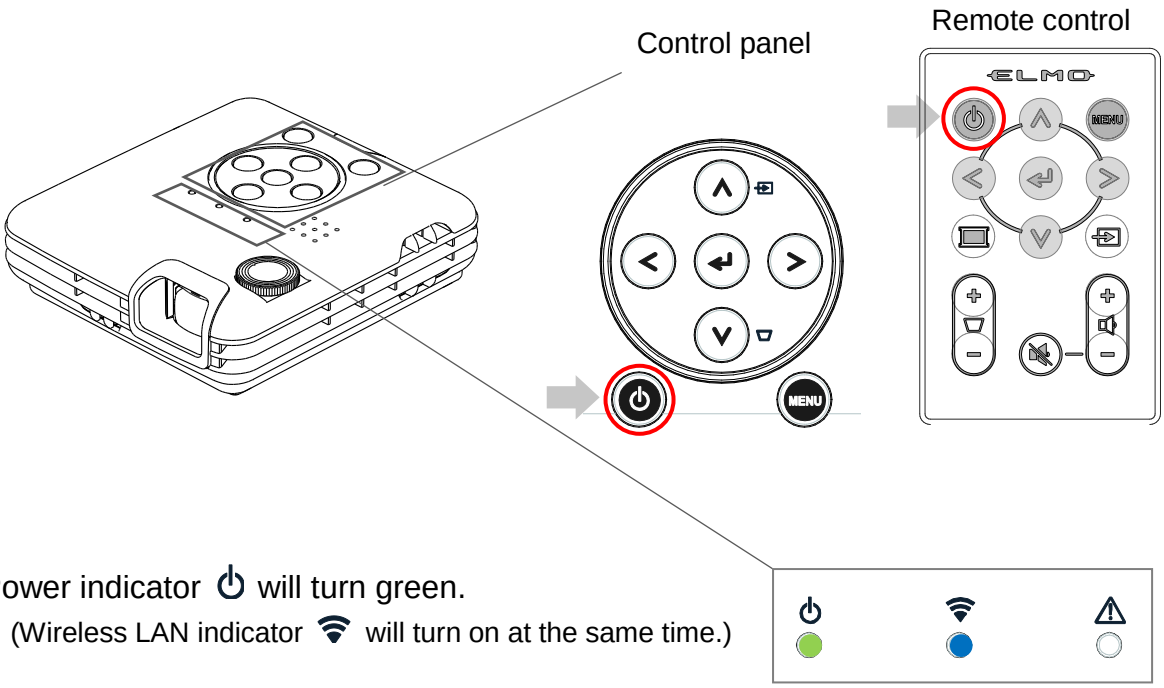
2 BASIC OPERATION

TURNING THE POWER ON/OFF

Powering on

1. **Make sure that the power and all necessary cables are connected properly.**

2. **Press the ⏻ button on the control panel or on the remote control.**



Power indicator ⏻ will turn green.
(Wireless LAN indicator will turn on at the same time.)

The “Input source standby” screen will be displayed.

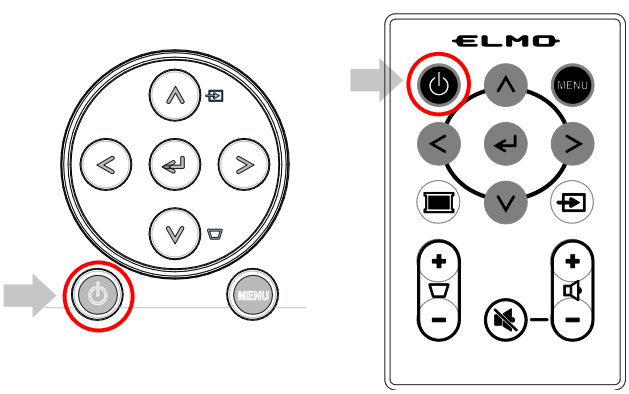
Note

■ It will take some time before you can operate the projector after the power is on.

Powering off

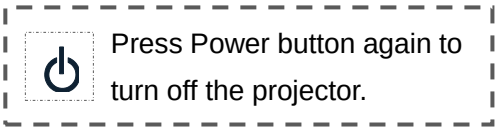
1. Press the ⏻ button on the control panel or on the remote control.

Control panel　　Remote control



2. A message will be displayed. Press the ⏻ button again.

Press the Power button on the control panel of the projector or on the remote control while the message in the right figure is displayed to turn off the power.



The Power indicator ⏻ will turn off.
The Wireless LAN indicator will also turn off.

The cooling fan will operate for a while. Disconnect the power cord after the fan stops.

Note

■ The “Power off confirmation” message will disappear after 5 seconds of no operation.

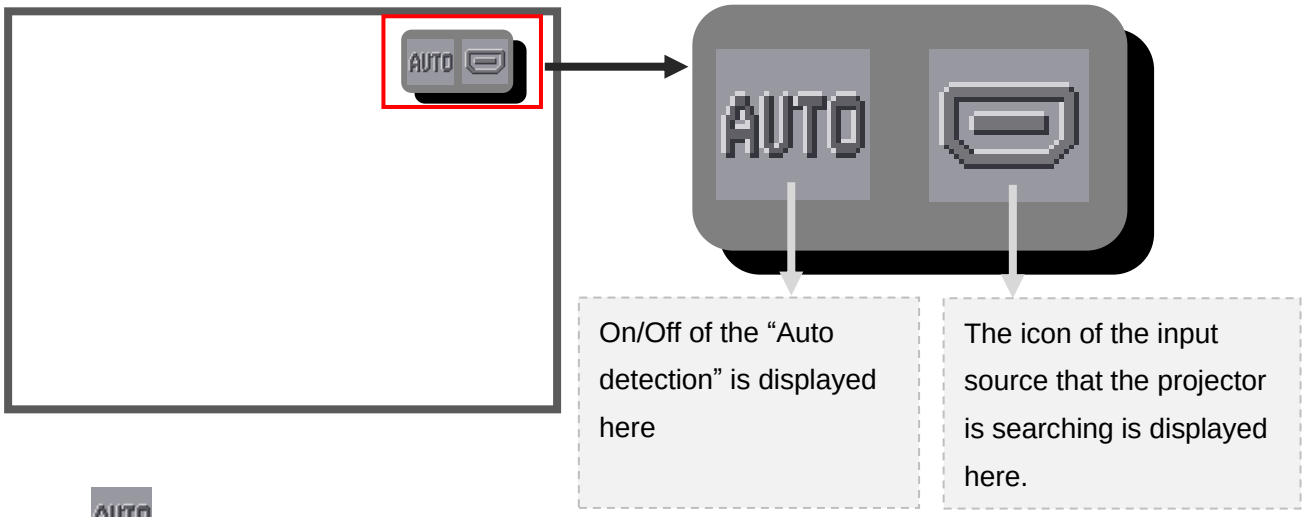
⚠ CAUTION

■ The projector will be hot for a while after it is turned off.
Do not put the projector in a case before it is cooled enough. Doing so could cause a malfunction.

DETECTING THE INPUT SOURCE

Checking the current input source

The current input source can be checked with the icons that are displayed at the top right of the “Input source standby” screen.


AUTO
AUTO
On/Off of the “Auto detection” is displayed here
The icon of the input source that the projector is searching is displayed here.

If the AUTO icon is marked in blue, it means that the “AUTO (auto detection)” function is activated.

→Refer to “Selecting the input source with the remote control”(Page35) or “Selecting the input source from the control panel”(Page36) for details on the selection of the icons.

→Refer to the following “Waiting for the input source to be automatically detected” for details on the “AUTO (auto detection)” function.

Waiting for the input source to be automatically detected

The “AUTO” function is activated as default setting. The input source will be automatically detected when the devices are connected to the RGB IN and HDMI terminals.

Manually select the source with the remote control or from the control panel of the projector when you want to select “USB” or “WiFi”.

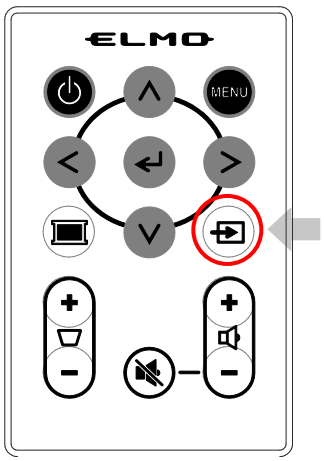
Note

■ Refer to page 35, 36 or 55 for details on the procedure to select the input source manually.

Selecting the input source with the remote control

1. **Turn on the device connected to the projector such as a computer and a Blu-ray player.**

   If you use a video player such as a Blu-ray player, start the playback.



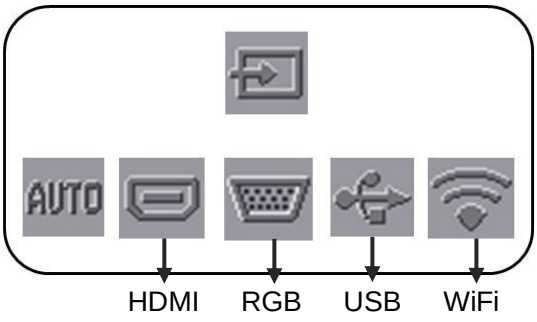
2. **Press the ⏎ button.**

   The “Input source select” menu will be displayed when the ⏎ button is pressed while the projector is in the “Input source standby” screen or is projecting an image.

3. **Select the input source with the < > buttons.**

   Select the desired input source with the < > buttons and press the ↵ button to execute the selection.
   When one of either “AUTO”, “HDMI”, or “RGB” is selected, the “Input source select” menu will be closed and the image of the selected source will be displayed.
   When “USB” or “WiFi” is selected, the menu of the selected mode will also be displayed.

Input source select menu



If you want to cancel the Input source select menu, press the “MENU” button.

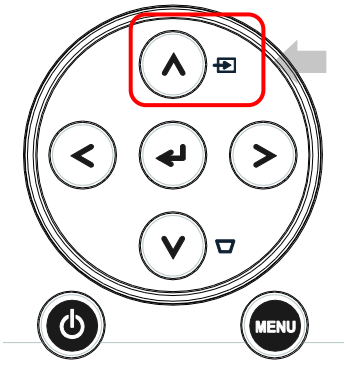
Note

- The “Input source select” menu will be automatically closed after 3 seconds of no operation.
- In “AUTO”, the projector will search for the available input source and display it. The input source will change as follows:
  HDMI→RGB→HDMI…
- Refer to “SELECTING THE INPUT SOURCE” (Page55) for details on the input source.
- When “USB” or “WiFi” is selected, the automatic detection function cannot be used. In that case, manually change the input source by pressing the “MENU” button on the control panel or on the remote control according to the instruction in “SELECTING THE INPUT SOURCE” (Page55).
- For details on the operations when “USB” or “WiFi” is selected, refer to the followings:
  - USB - “3 USB VIEWER” (Page42)
  - WiFi - The separate “Instruction Manual - Network Operation Guide”

Selecting the input source from the control panel

1. **Turn on the device connected to the projector such as a computer and a Blu-ray player.**

   If you use a video player such as a Blu-ray player, start the playback.



2. Press the ∧ button.

The “Input source select” menu will be displayed when the ∧ button (⏎) is pressed while the projector is in the “Input source standby” screen or is projecting an image.

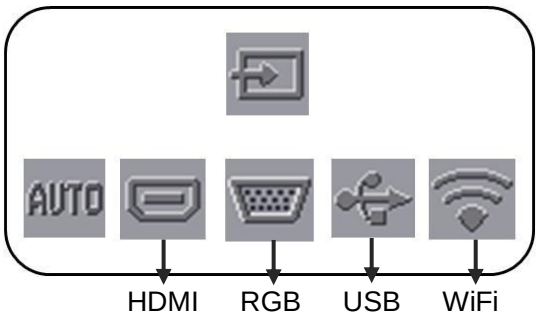
3. **Select the input source with the < > buttons.**

Select the desired input source with the < > buttons and press the ↵ button to execute the selection.

When one of either “AUTO”, “HDMI”, or “RGB” is selected, the “Input source select” menu will be closed and the image of the selected source will be displayed.

When “USB” or “WiFi” is selected, the menu of the selected mode will also be displayed.

Input source select menu



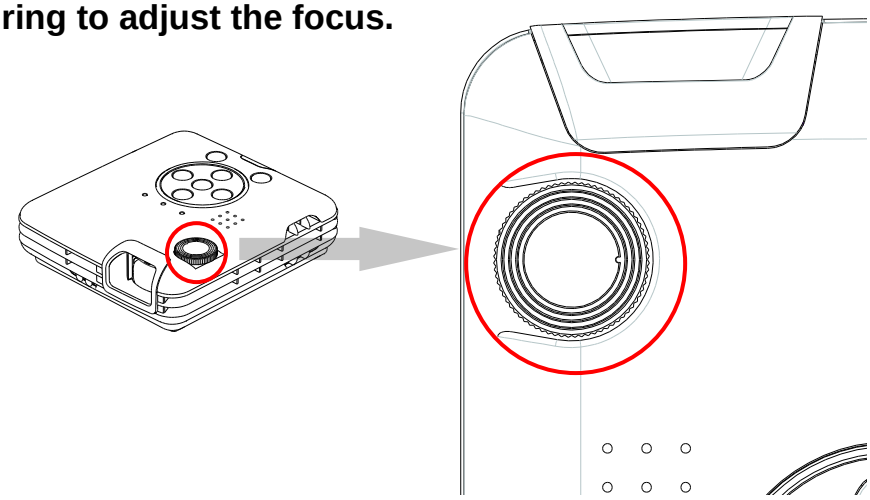
If you want to cancel the “Input source select” menu, press the “MENU” button.

Note

- The “Input source select” menu will be automatically closed after 3 seconds of no operation.
- In “AUTO”, the projector will search for the available input source and display it. The input source will change as follows:
  HDMI→RGB→HDMI…
- Refer to “SELECTING THE INPUT SOURCE” (Page55) for details on the input source.
- When “USB” or “WiFi” is selected, the automatic detection function cannot be used. In that case, manually change the input source by pressing the “MENU” button on the control panel or on the remote control according to the instruction in “SELECTING THE INPUT SOURCE” (Page55).
- For details on the operations when “USB” or “WiFi” is selected, refer to the followings:
  - USB - “3 USB VIEWER” (Page42)
  - WiFi - The separate “Instruction Manual - Network Operation Guide”

ADJUSTING THE FOCUS

1. Turn the focus ring to adjust the focus.



Note

- The focus adjustment can be performed when the throw distance is between 48cm and 133cm.
- Refer to “Throw distance and screen size” (Page23) for details on the screen size.
- Sometimes, you may notice fine streaks on projected images. This is due to interference with the screen surface. Replace the screen or displace the focus a little.

⚠ CAUTION

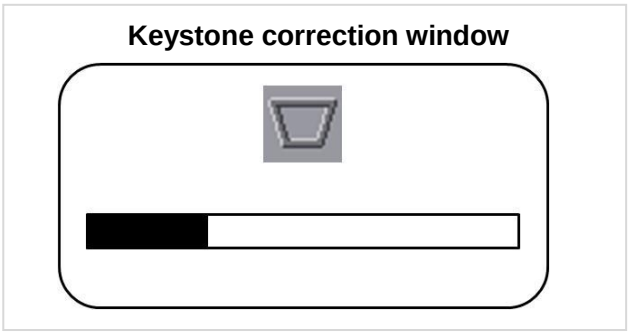
- Do not look into the lens during the projection. The strong light emitted from the lens may cause damage to your eyes. Pay attention especially when you use the projector in an environment where there are children.
- Do not touch the lens. If the lens becomes dirty from fingerprints or anything else, the projected images may become blurry. In such cases, wipe the lens with commercial lens-cleaning paper. Make sure to turn off the projector, disconnect the power cord and then allow the cabinet to cool before cleaning the lens.
- When the projector is moved from a cold place to a warm place or when the room temperature is suddenly increased, condensation on the lens may occur, resulting in blurred image. In such cases, let the projector warm up to room temperature before using it.

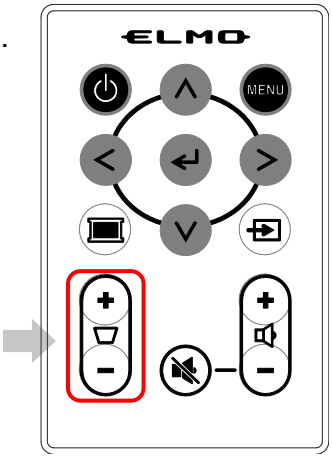
CORRECTING THE KEYSTONE DISTORTION

Correcting the keystone distortion manually with the remote control

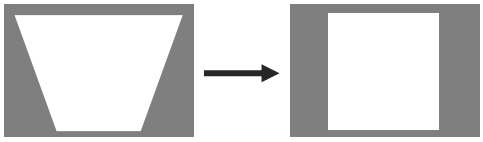
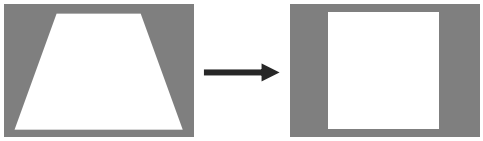
1. **Press the "+" button or "-" button near the ▱ mark.**

   The following "Keystone correction" window will be displayed.





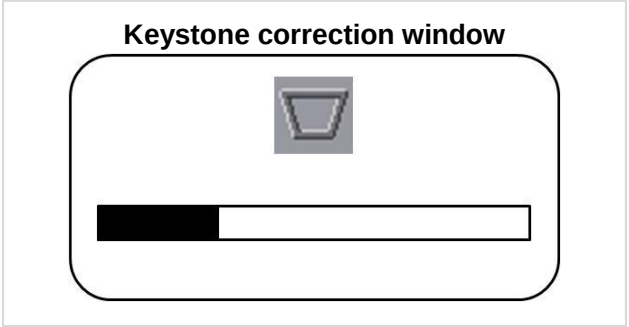
2. **Press the "+" button or "-" button near the ▱ mark to correct the keystone distortion.**

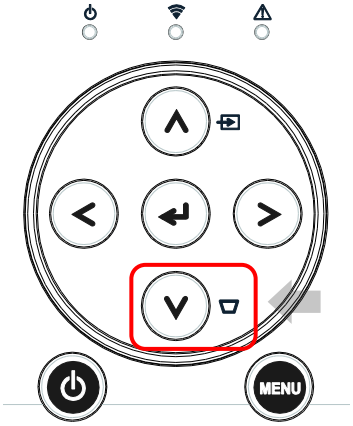
Press the "+" button. (Press when the projection angle is increased.)	
Press the "-" button. (Press when the projection angle is decreased.)	

Correcting the keystone distortion manually with control panel

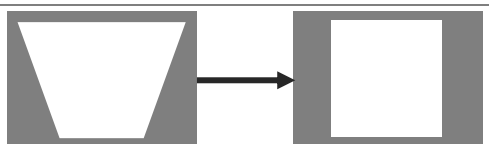
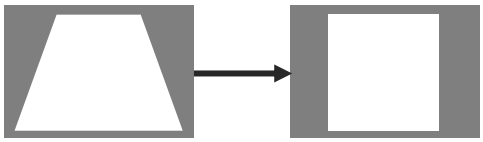
1. **Press the "∨"button (▱) on the control panel.**

   The following "Keystone correction" window will be displayed.





2. Press the "< >" buttons on the control panel to correct the keystone distortion.

Press the ">" button. (Press when the projection angle is increased.)	
Press the "<" button. (Press when the projection angle is decreased.)	

Note

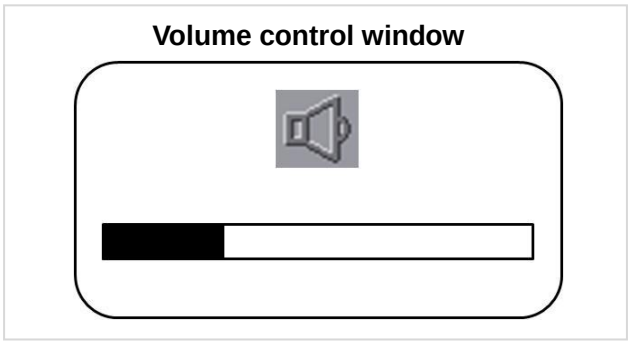
- The "Keystone correction" window will be automatically closed after 3 seconds of no operation.
- The keystone correction can cause an image to be slightly degraded because the correction is made electronically.
- The keystone distortion can be corrected to ±40°of the angle of tilt.
- The keystone correction can also be performed from the menu.
  Refer to "CORRECTING THE KEYSTONE DISTORTION" (Page38) for details.
- When "USB" or "WiFi" is selected, the keystone correction can not be performed with the "V" button (▽) on the control panel. In that case, perform the keystone correctin with the "MENU" button on the control panel or on the remote control.
  Refer to "CORRECTING THE KEYSTONE DISTORTION" (Page38) for details.

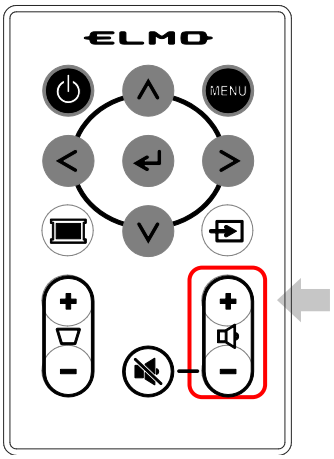
CONTROLLING THE VOLUME

Turning up the volume

1. Press the "+" button near the 🔊 mark on the remote control.

The following "Volume control" window will be displayed and the volume will be turned up.

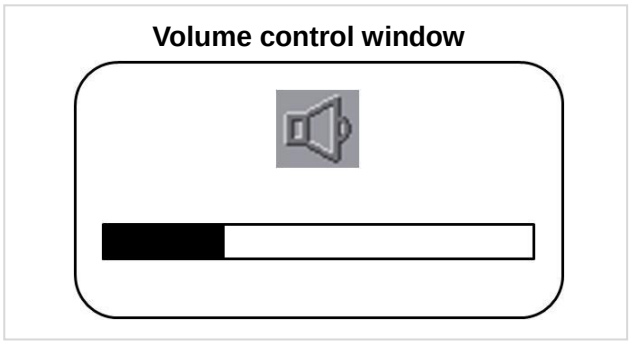


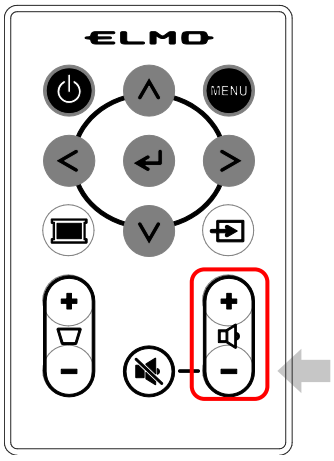


Turning down the volume

1. Press the "-" button near the 🔊 mark on the remote control.

The following "Volume control" window will be displayed and the volume will be turned down.





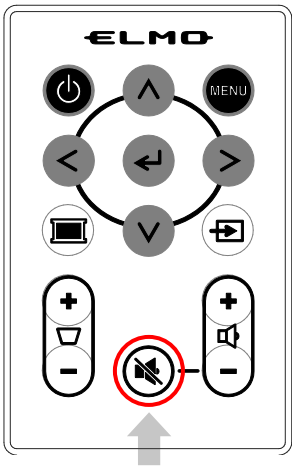
Note

- The "Volume control" window will be automatically closed after 3 seconds of no operation.
- The volume control can also be performed from the menu.
  Refer to "CONTROLLING THE VOLUME" (Page40) for details.

TURNING OFF THE SOUND

You can temporarily mute the sound from the built-in speaker.

1. Press the button to mute the sound.



Press the button again to cancel the mute.

When the "+" button near the mark on the remote control is pressed while in mute, the mute will be released and the volume will be increased by 1 level.
When the "-" button near the mark on the remote control is pressed while in mute, the mute will be released and the volume will be decreased by 1 level.

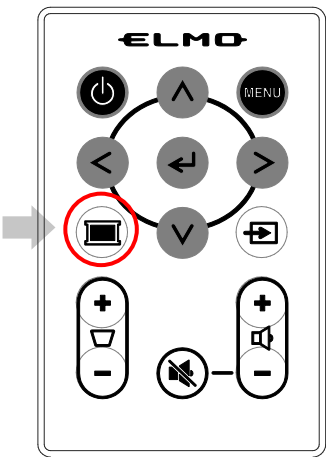
HIDING THE IMAGE

You can temporarily hide the projected image with the "Blank screen" function.

1. Press the button on the remote control.

The blank screen will be displayed to hide the projected image.

Blank screen



Press the button again to return to the input signal screen.

Note

- You can also exit the blank screen by pressing any button on the control panel or on the remote control, except the button on the remote control.
- The sound will not be muted when the blank screen is displayed.

3 USB VIEWER

With the USB viewer you can display or play the files (Office files, movie files or still picture files) stored in the USB flash drive.

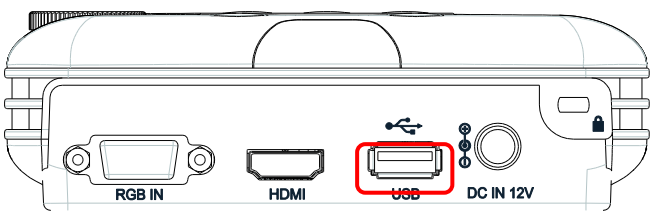
SUPPORTED FILE FORMATS AND VERSIONS

The following files are supported:

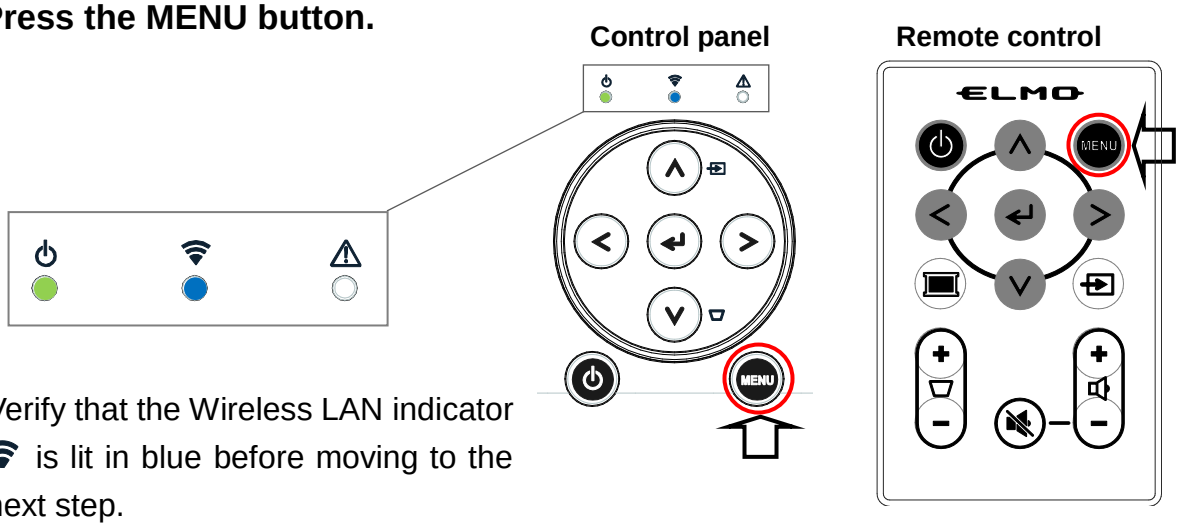
Movie files	Play movie files. Supported file formats: AVI, MOV, MP4: Video=H.264, Audio=MP3, AAC, PCM Refer to “PLAYING MOVIES - MOVIES -” (Page45) for details.
Still picture files	Display still picture files. Supported files: JPEG, BMP Refer to “DISPLAYING STILL PICTURES - STILL PICTURES -” (Page47) for details.
Office files	Display Microsoft Office documents (Word, Excel, Power Point) and PDF files. Microsoft Word:97, 2003, 2007, 2010 Microsoft Excel:97, 2003, 2007, 2010 Microsoft PowerPoint: 97, 2003, 2007, 2010 Adobe PDF: 1.0 - 1.4 Refer to “DISPLAYING OFFICE FILES - OFFICE FILES-” (Page49) for details.

DISPLAYING THE USB MENU

1. Insert the USB flash drive to the projector.



2. Press the MENU button.

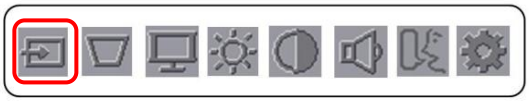


Verify that the Wireless LAN indicator is lit in blue before moving to the next step.

3. Select the "Input source select" icon .

Select the "Input source select" icon in the "Main" menu with the < > buttons on the control panel or on the remote control. Then press the ↵ button to execute the selection.

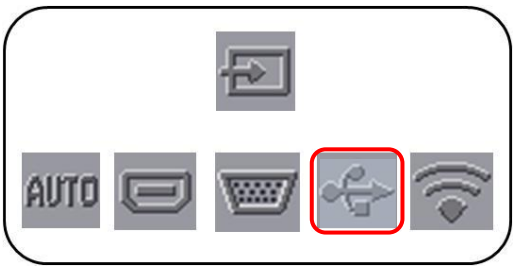
Main menu



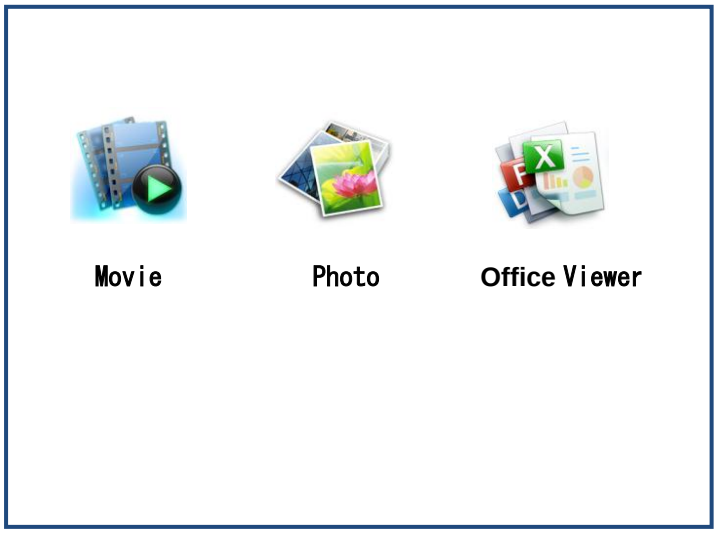
4. Select the USB icon .

Select the "USB" icon in the "Input source select" menu with the < > buttons on the control panel or on the remote control. Then press the ↵ button to execute the selection.

Input source select menu



The following "USB" menu will be displayed.



Select the menu (Movies, Still pictures, Office files) with the < > buttons on the control panel or on the remote control. Then press the ↵ button to execute the selection.

Icon	Menu	Function
	Movies	To play movie files stored in the USB flash drive. Refer to “PLAYING MOVIES - MOVIES -“ (Page45) for details.
	Still pictures	To display still picture files stored in the USB flash drive. Refer to “DISPLAYING STILL PICTURES - STILL PICTURES -” (Page47) for details.
	Office files	To display Office files (Word, Excel, PowerPoint, PDF) stored in the USB flash drive. Refer to “DISPLAYING OFFICE FILES - OFFICE FILES-” (Page49) for details.

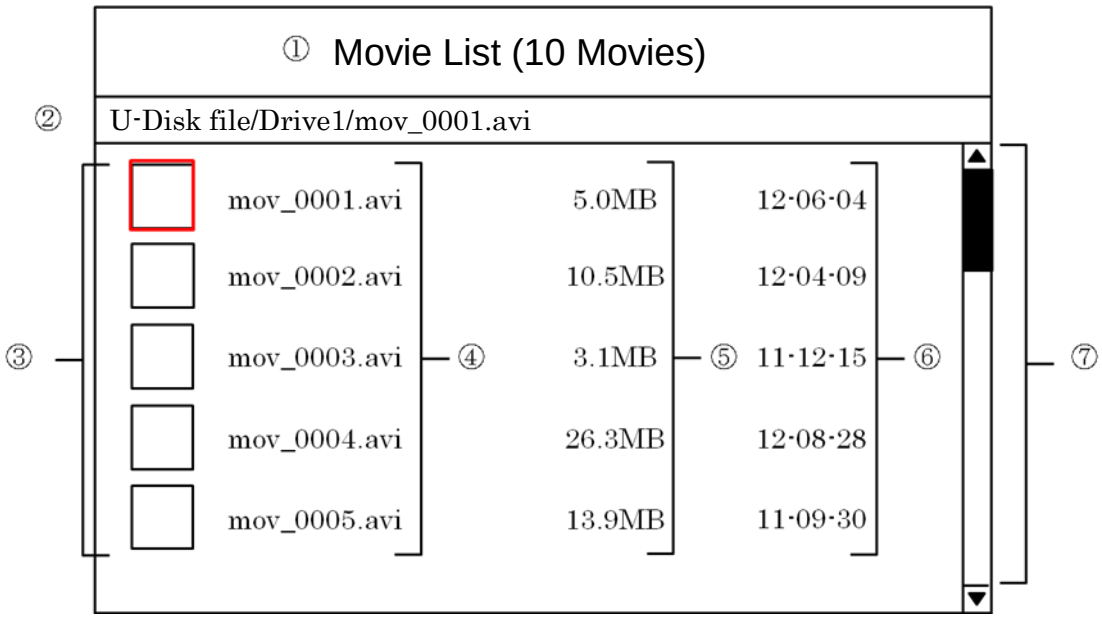
Note

- If “Movies” or “Office files” is selected when the USB flash drive is not inserted, only the title will be displayed. Then if you insert the USB flash drive, the USB flash drive will be recognized by the projector and you will be able to use the Office viewer or play movie files.
- If “Still pictures” is selected when the USB flash drive is not inserted, the message “No File” will be displayed. Then if you insert the USB flash drive, the USB flash drive will be recognized by the projector and you will be able to display still pictures.
- If a folder that do not save picture is selected, the message “No File” will be displayed.
- Use the “Still picture display” function after saving a JPG or BMP file into the folder to be accessed.
- If the file name is too long, it may not be displayed correctly.
- If the file is too large, its file size may not be displayed correctly.
- Pressing the buttons on the control panel or the remote control too fast may freeze the screen. If the screen is frozen, try to press the buttons slowly several times.
- If you want to display the “Main” menu when the “USB” menu is displayed, press the “MENU” button.
- Verify that the Wireless LAN indicator is lit before changing the input source to USB.
- An error message may be displayed when the USB viewer is used. Refer to “LIST OF USB MENU ERROR MESSAGES” (Page78) for details.
- Do not remove the USB flash drive while files or images are projected. It may cause damage on normal operations.

PLAYING MOVIES - MOVIES -

The following list of movies will be displayed when “Movies” is selected in the “USB” menu.

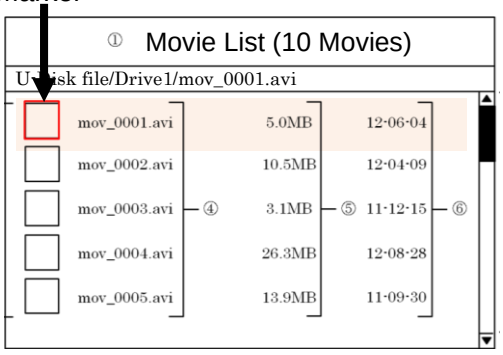
List of movies



Number	Function
①	The number of movies will be displayed.
②	The directory path will be displayed.
③	Movie file icons will be displayed.
④	File name.
⑤	File size.
⑥	The date the file was created will be displayed.
⑦	Scroll bar.

1. Select a movie file to play.

Marker



Either movie files or folders are displayed in the “list of movies”.

Move the marker to the file or folder that you want to play with the ∧ ∨ buttons on the control panel or on the remote control.

If the ↵ button is pressed after moving the marker to the folder, the files in the folder will be displayed.

If you want to return to the previous screen, press the MENU button.

2. Press the ↵ button.

The selected movie file will be played full screen.
During movie playback, you can perform the following operations such as “Fast forward”, “Rewind” and “Pause” with the remote control or the control panel.
A mark will be displayed at the left top of the screen when performing “Pause” or “Multiple-speed playback”.

★Available actions during movie playback (Remote control/ Control panel)

Action		Mark	Operation
Play		---	Press the ↵ button while pause or playing at double speed
Stop		---	Press the **MENU** button during playback. The screen returns to the list of movie files.
Pause		||	Press the ↵ button during playback.
Multiple-speed playback	Fast forward	▶▶2x ▶▶4x ▶▶8x ▶▶16x ▶▶32x	Press the > button during forward playback. *Each time you press the > button, the playback speed will change as follows: 2x →4x →8x →16x →32x →1x →2x…
	Rewind	◀◀2x ◀◀4x ◀◀8x ◀◀16x ◀◀32x	Press the < button during reverse playback. * Each time you press the < button, the playback speed will change as follows: 2x →4x →8x →16x →32x →1x →2x…
Volume adjustment	Up		Press the + button of 🔊 ign on the remote control while playing. Or press the∧ button on the control panel.
	Down		Press the - button of 🔊 sign on the remote control while playing. Or press the∨ button on the control panel.

Note

- The following movie files are supported:

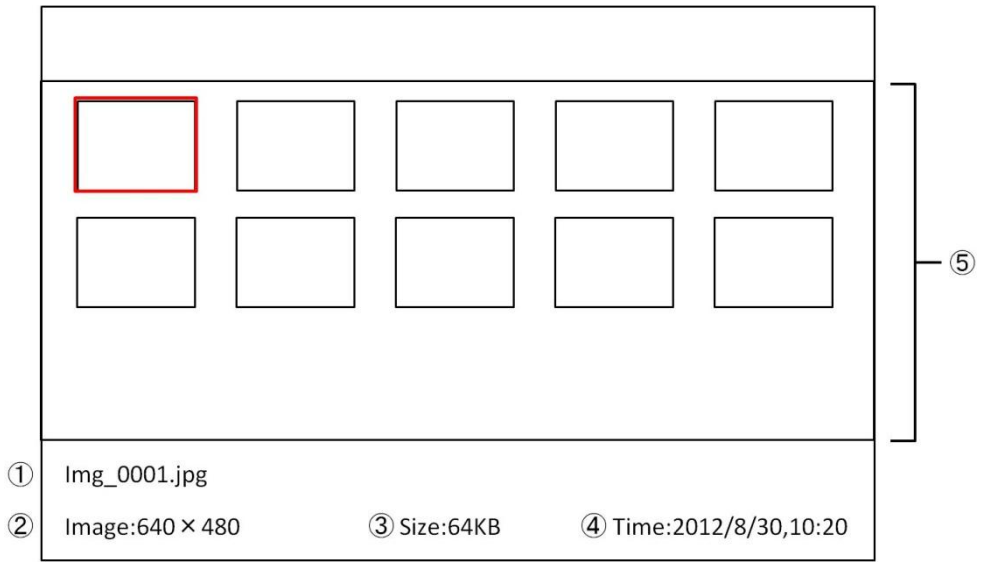
File format:	Video codec: H.264 Audio codec: MP3, AAC, PCM Container:AVI, MOV, MP4
Bit rate	Less than 1Mbps recommended
Frame rate	30fps recommended

- USB flash drive with 20MB/s of reading speed or higher is recommended to be used.
- Some files of supported formats may not be played correctly. We recommend you to do a test before playing the movie.
- Movie files that are over 2GB in size may not be played.

DISPLAYING STILL PICTURES - STILL PICTURES -

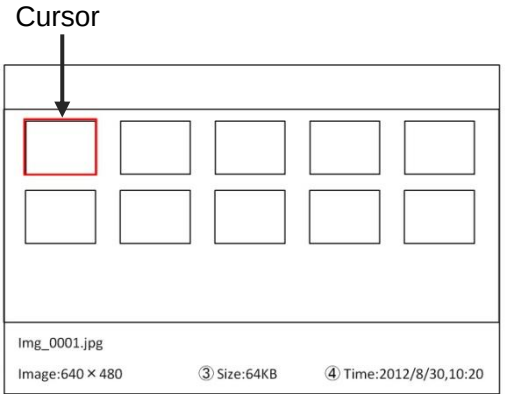
The following list of still pictures will be displayed when “Still pictures” is selected in the “USB” menu.

List of still pictures



Number	Function
①	The name of the selected file will be displayed.
②	Image size (W x L).
③	File size.
④	Shooting date. (The date the file was created).
⑤	Thumbnails of the still picture files or folders will be displayed.

1. Select a still picture file to display.



Either still picture files or folders are displayed in the “list of still pictures”.
Move the cursor to the file or folder that you want to display with the ∧ ∨ < > buttons on the control panel or on the remote control.
If the ↵ button is pressed after moving the cursor to the folder, the files in the folder will be displayed.

If you want to return to the previous screen, press the **MENU** button.

★How to move between pages (Remote control/ Control panel)

Action	Operation
Go to the next page.	Press the ∨ button while any of the thumbnails in the bottom row is selected.
	Press the > button while the thumbnail in the bottom right is selected.
Go to the previous page.	Press the ∧ button while any of the thumbnails in the top row is selected.
	Press the < button while the thumbnail in the top left is selected.

2. Press the ↵ button.

The selected picture file will be displayed full screen.

★Available actions when a still picture is displayed (Remote control/ Control panel)

Action		Operation
Go to the next file.		Press the > button when the picture is displayed in normal size.
Go to the previous file.		Press the < button when the picture is displayed in normal size.
Return to the list of still pictures.		Press the MENU button when the picture is displayed in normal size.
Zoom in.		Press the ↵ button. *The picture will be zoomed in each time the ↵ button is pressed. There are 5 zoom levels available. The zoom level returns to normal after level 5.
	Move to the right.	Press the > button when the picture is zoomed in.
	Move to the left.	Press the < button when the picture is zoomed in.
	Move up.	Press the ∧ button when the picture is zoomed in.
	Move down.	Press the ∨ button when the picture is zoomed in.

Note

■ The following still picture files are supported:

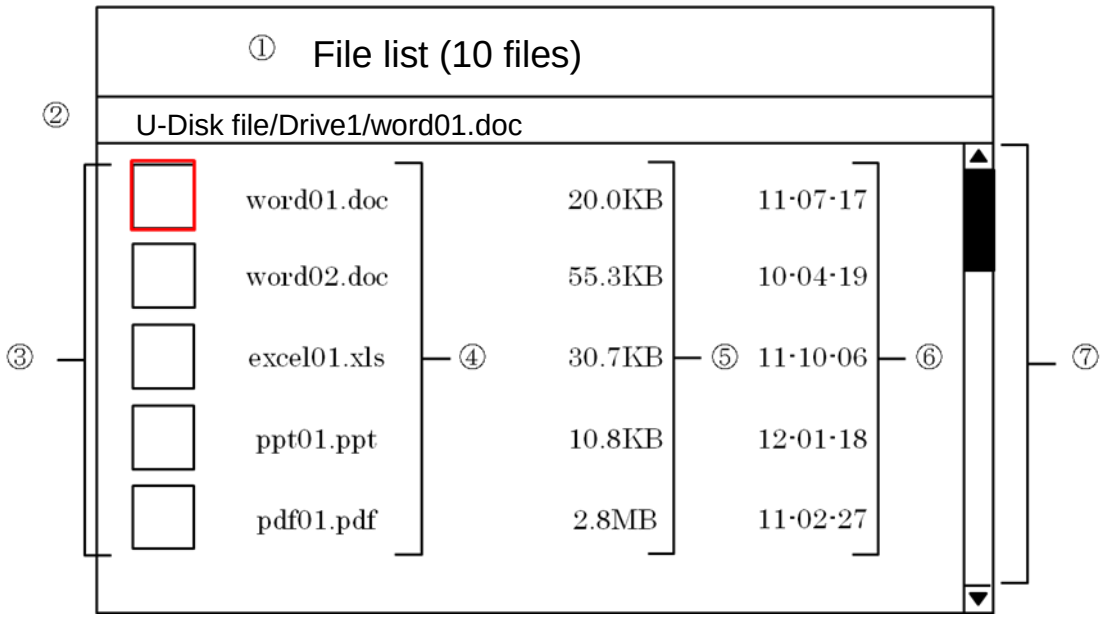
File format	JPEG, BMP
Resolution	JPEG: Max.16Mpixel BMP: Max. 9Mpixel

■ Some files of supported formats may not be displayed correctly. We recommend you to do a test before displaying the still picture.

Thumbnails may not be displayed if the remaining free space on the USB flash drive is running low. Delete unnecessary files and the thumbnails will be displayed.

DISPLAYING OFFICE FILES - OFFICE FILES-

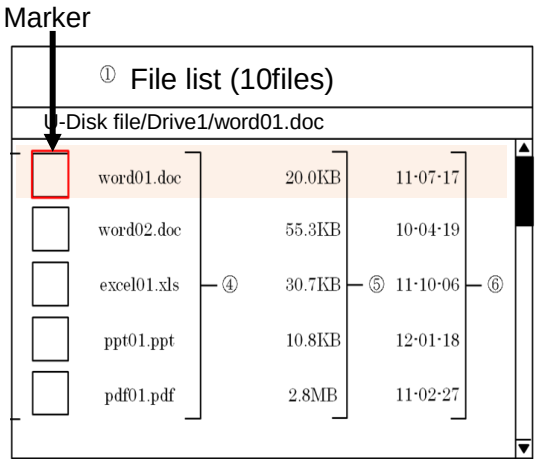
The following list of Office files will be displayed when “Office files” is selected in the “USB” menu.



①	The number of Office files will be displayed.
②	The directory path will be displayed.
③	Office file and PDF icons will be displayed.
④	File name.
⑤	File size.
⑥	The date the file was created will be displayed.
⑦	Scroll bar.

1. Select an Office file to display.

Either Office files or folders are displayed in the “list of Office files”.
Move the marker to the file or folder that you want to display with the ∧ ∨ > ∨ buttons on the control panel or on the remote control.
If the ↵ button is pressed after moving the marker to the folder, the files in the folder will be displayed.



If you want to return to the previous screen, press the **MENU** button.

2. Press the ↵ button.

The selected file will be displayed full screen.

★Available actions when an Office file is displayed (Remote control/ Control panel)

Action	Operation
Go to the next file.	Press the ∧ button when the file is displayed in normal size.
Go to the previous file.	Press the ∨ button when the file is displayed in normal size.
Move the display position to the left.	Press the < button when the file is displayed in normal size.
Move the display position to the right.	Press the > button when the file is displayed in normal size.
Return to the list of Office files.	Press the MENU button when the file is displayed in normal size.
Zoom in.	Press the ↵ button. *The file will be zoomed in each time the ↵ button is pressed. There are 5 zoom levels available. The zoom level returns to normal after level 5.
Move to the right.	Press the > button when the file is zoomed in.
Move to the left.	Press the < button when the file is zoomed in.
Move up.	Press the ∧ button when the file is zoomed in.
Move down.	Press the ∨ button when the file is zoomed in.

Note

- The following Office files are supported:

Microsoft Word (doc/docx), Microsoft Excel (xls/xlsx), Microsoft PowerPoint (ppt/pptx)	Supported versions: Office 97,2003,2007, 2010
PDF	Adobe PDF: 1.0~1.4

- Some files of supported formats may not be displayed correctly. We recommend you to do a test before displaying the files.
- If you cannot see the entire page after scrolling the zoomed file, press the ↵ button several times to return the zoom level to normal.
- The animation feature of PowerPoint is not supported.
- The file may be displayed differently with the USB viewer.

4 MENU OPERATION

Various configurations and adjustments to the projected image can be done from the menu.

DISPLAYING THE MENU AND BASIC OPERATION

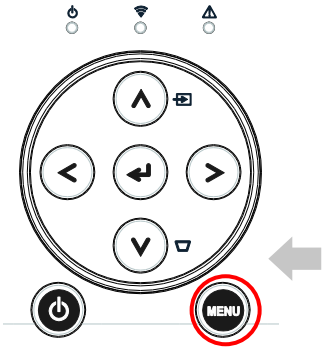
Displaying the main menu

1. **Press the MENU button.**

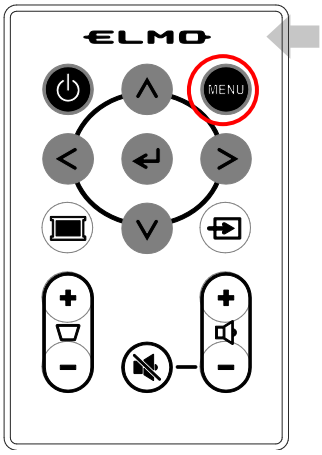
   Press the MENU button on the remote control or on the control panel.

   The menu will be closed if the MENU button is pressed again. The menu will also be closed automatically after 30 seconds of no operation.

Control panel

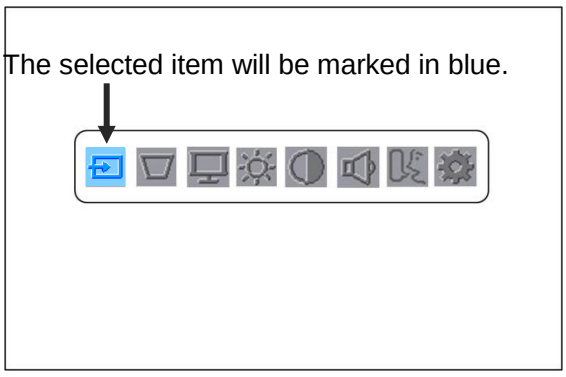


Remote control

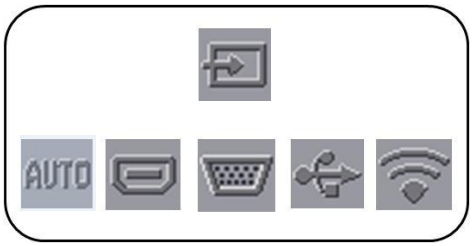


Operating the menus

Main menu



Sub menu



The selected item in the main menu will be marked in blue.
If you open the selected item, a sub menu will be displayed and you can configure the details.
The items that cannot be selected will be marked in dark grey.

The non selectable items will be marked in dark grey.→

Button	Function
↵ button	To configure the setting of the selected icon.
∧ button	To move the selected item up.
∨ button	To move the selected item down.
< button	To move the selected item left. To adjust the setting value of the adjustment bar*.
> button	To move the selected item right. To adjust the setting value of the adjustment bar.
MENU button	To return to the previous menu without changing the settings. When the main menu is displayed, the main menu will be closed.

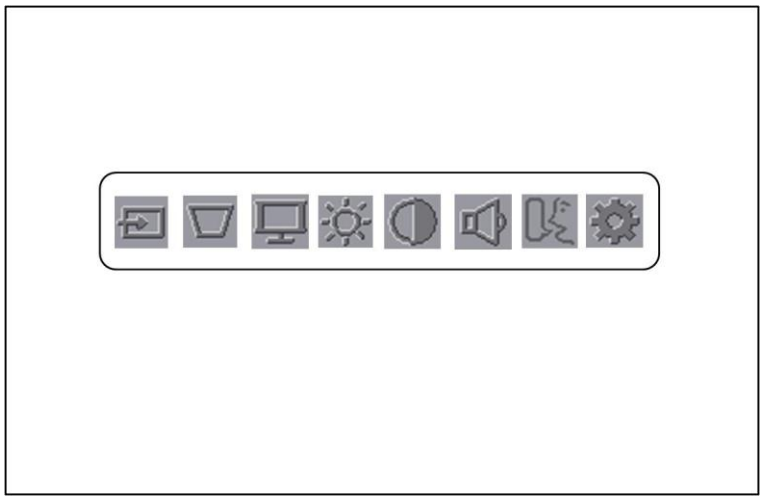
*Adjustment bar: To be used to adjust the setting values.
(For example: Volume adjustment bar)

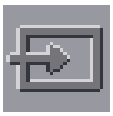
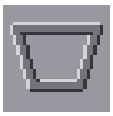
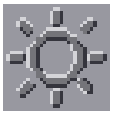
Note

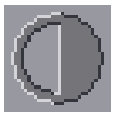
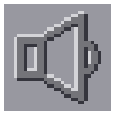
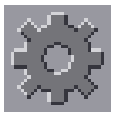
- The value set with of the adjustment bar using the < > buttons cannot be returned to the previous value before setting by pressing the MENU button.
- The menu will be automatically closed after 30 seconds of no operation. Press the MENU button again to display the menu.
- There are 3 shortcut buttons (Input source select, Keystone, Volume) on the remote control. The menu that appears when one of these buttons is pressed will be closed after 3 seconds of no operation. Press the shortcut button again to display the menu.
- If you want to display the “Main” menu when the “USB” menu is displayed, press the “MENU” button.

MAIN MENU

The following items can be configured from the main menu:
Input source selection/ Keystone adjustment/ Display mode selection/ Brightness adjustment/ Contrast adjustment/ Volume adjustment/ Language/ Detail settings
If you select the item, a sub menu will be displayed.
Refer to “Displaying the main menu” (Page51) for details on displaying the main menu.



Icon	Name	Options/ Adjustable range	Description
	Input source selection →P55	AUTO Default	To change the input source.
		HDMI	
		RGB	
		USB	
		WiFi	
	Keystone adjustment →P57	- 40 ~ + 40 Default setting: 0	To correct the vertical keystone distortion. The correction can be made in increments of one degree.
	Display mode selection →P58	Cinema/ Game	To set an appropriate image mode according to the scene.
		Photo Default	
		Presentation	
	Brightness adjustment →P59	1 ~ 100 Default setting: 50	To adjust the brightness of the image. The adjustment can be made in increments of one unit.

Icon	Name	Options/ Adjustable range	Description
	Contrast adjustment →P60	1 ~ 100 Default setting: 50	To adjust the contrast of the image. The adjustment can be made in increments of one unit.
	Volume adjustment →P61	1 ~ 10 Default setting: 7	To adjust the volume of the image. The adjustment can be made in increments of one unit.
	Language →P62	English French German Spanish Italian Swedish Dutch Portugues Russian Japanese Simplified Chinese	To set the language for the menus and messages.
	Detail settings →P63	The following items can be configured: ECO mode Default setting:OFF Display setting - Horizontal position - Vertical position - Frequency - Tracking - Aspect ratio Default setting: AUTO(Fixed) Auto power off Default setting: 180 Projection mode Default setting: Front Installation mode Default setting: Desktop Factory settings	

Note

■ The main menu will be automatically closed after 30 seconds of no operation or when the MENU button is pressed again.

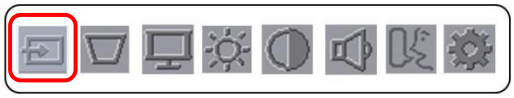
SELECTING THE INPUT SOURCE

1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Main menu

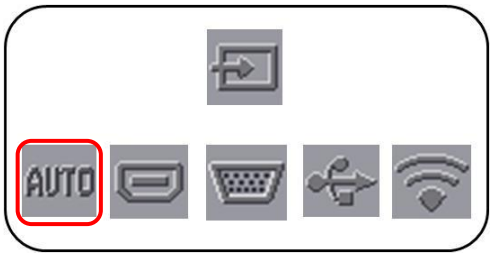


Press the ↵ button to execute the selection.

The “Input source select” menu will be displayed.

3. Select the input source with the < > buttons on the remote control or on the control panel.

Input source select menu



Press the ↵ button to execute the selection and return to the main menu.
Projected image will change to the image of the selected input source.

Icon	Name	Description
	AUTO	The projector will search HDMI signal or RGB signal. The projector will search HDMI signal first, and then RGB signal. The image of the detected input source will be displayed.
	HDMI	The image of HDMI signal will be displayed.
	RGB	The image of RGB signal will be displayed.

Icon	Name	Description
	USB	The data in the USB flash drive will be displayed. Refer to “3 USB VIEWER” (Page42).
	WiFi	The image of the iOS devices connected via wireless LAN. Refer to the separate “Instruction Manual - Network Operation Guide”.

Note

- USB and WiFi signal will not be detected automatically when AUTO is selected.
  Select USB or WiFi from the “Input source select” menu.
- The selected input source will be displayed when HDMI, RGB, USB or WiFi is selected.
  If the selected input source cannot be detected, the icon of the selected input source will be displayed at the top right of the “Input source standby” screen.
  Refer to “Checking the current input source” (Page34) for details.

ADJUSTING TH KEYSTONE DISTORTION

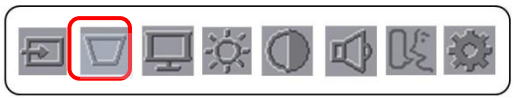
1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection.

Main menu

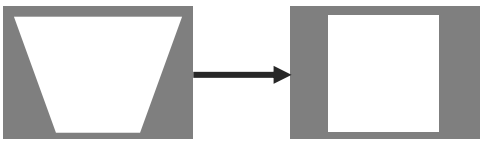
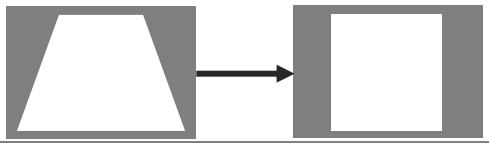


The “Keystone correction” window will be displayed.

3. Correct the keystone distortion with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the correction and return to the main menu.

Keystone correction window

Remote control or control panel	
Press the > button. (Press when the projection angle is increased.)	
Press the < button. (Press when the projection angle is decreased.)	

Note

- The keystone correction can cause an image to be slightly degraded because the correction is made electronically.
- The keystone distortion can be corrected to ±40° of the angle of tilt.

SELECTING THE DISPLAY MODE

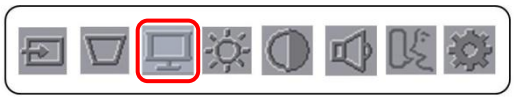
1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection.

Main menu



The “Display mode select” menu will be displayed.

3. Select the display mode with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection and return to the main menu.

Display mode select menu

The following display mode can be selected:

Icon	Mode	Description
	Cinema/ Game	A mode suitable for watching movies or playing games.
	Photo	A mode suitable for displaying still pictures such as photos.
	Presentation	A mode for displaying color documents.

Press the MENU button to cancel the selection.

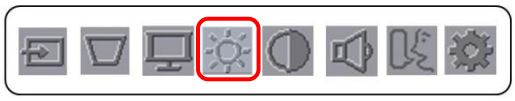
ADJUSTING THE BRIGHTNESS

1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Main menu

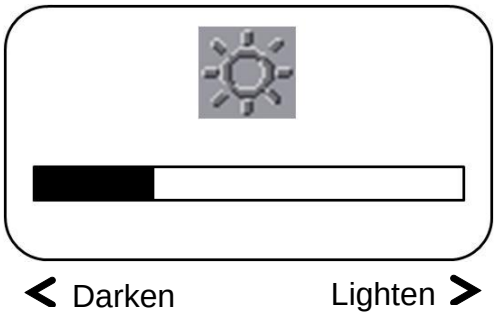


Press the ↵ button to execute the selection.

The “Brightness adjustment” window will be displayed.

3. Adjust the brightness with the < > buttons on the remote control or on the control panel.

Brightness adjustment



Press the ↵ button to execute the adjustment and return to the main menu.

Note

- The brightness adjustment cannot be done from the “Input source standby” screen.
- The brightness adjustment can be done to the respective input source (HDMI, RGB, USB, WiFi).

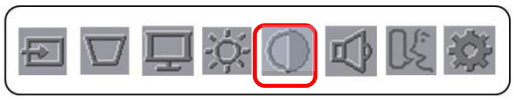
ADJUSTING THE CONTRAST

1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Main menu

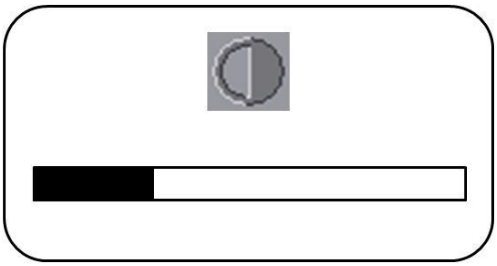


Press the ↵ button to execute the selection.

The “Contrast adjustment” window will be displayed.

3. Adjust the brightness with the < > buttons on the remote control or on the control panel.

Contrast adjustment window



< Weaken Sharpen >

Note

- The contrast adjustment cannot be done from the “Input source standby” screen.
- The contrast adjustment can be done to the respective input source (HDMI, RGB, USB, WiFi).

ADJUSTING THE VOLUME

Volume setting

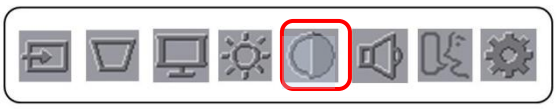
1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection.

Main menu



The “Volume setting” window will be displayed.

3. Adjust the volume with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the adjustment and return to the main menu.

Volume setting window

< Down Up >

Turning off the sound (MUTE)

You can temporarily mute the sound with the MUTE button on the remote control.
Refer to “TURNING OFF THE SOUND” (Page41)

SETTING THE LANGUAGE

Set the language to be used for the menus.

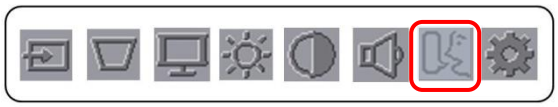
1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection.

Main menu

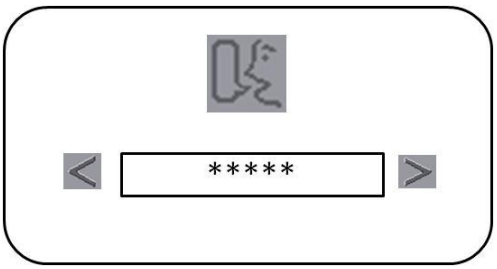


The “Language” menu will be displayed.

3. Select the language with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection and return to the main menu.

Language menu



The following language can be selected.

Language	English	French
	German	Spanish
	Italian	Swedish
	Dutch	Portuguese
	Russian	Japanese
	Simplified Chinese	

DETAIL SETTINGS

The following items can be configured:

ECO mode/ Display setting/ Auto power off/ Projection mode/ Installation mode/ Factory settings

Various information can be obtained from this screen.
Refer to “Checking various information” (Page65).

Displaying the detail settings

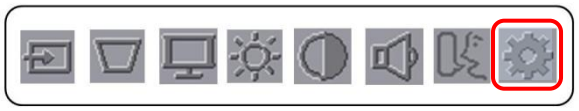
1. Display the “Main” menu.

Refer to “Displaying the main menu” (Page51).
Press the MENU button on the remote control or on the control panel.
The main menu will be displayed.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection.

Main menu

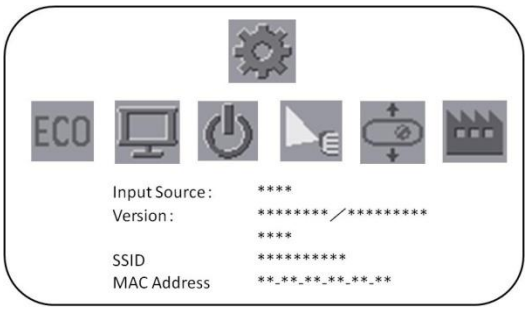


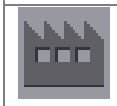
The “Detail settings” menu will be displayed.

3. Select the item to be configured with the < > buttons on the remote control or on the control panel.

Press the ↵ button to display the setting menu of the selected item.
Press the MENU button to return to the main menu.

Detail settings menu



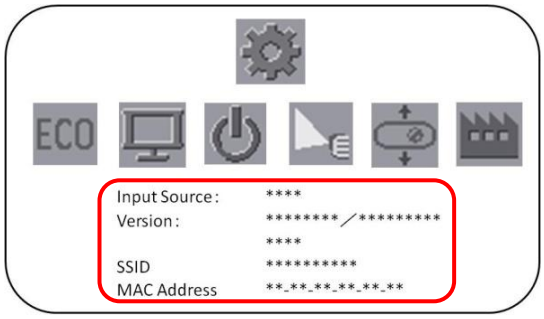
Icon	Name			Options	Description
	ECO mode setting →P65			On	To set the ECO mode. When the projector is in the ECO mode, the LED brightness and fan noise will decrease.
				Off	
	Display setting →P66		Horizontal position →P66		To adjust the horizontal position of the image.
			Vertical position →P67		To adjust the vertical position of the image.
			Frequency →P67		To change the sampling clock of the projector against the input signal. It will reduce the vertical flicker noise.
			Tracking →P68		To change the sampling phase of the projector against the input signal. It will reduce the horizontal flicker noise.
			Aspect ratio →P69	Auto	To set the horizontal to vertical ratio of the input signal.
				4 : 3	
				16 : 9	
	Auto power off setting →P70			Off	To automatically turn off the projector after a certain period of no operation.
				1 ~ 180	
	Projection mode setting →P71			Front	To set whether to project images from the front of the screen or from the rear of the screen.
				Rear	
	Installation mode setting →P72			Desktop	To set how to install the projector.
				Ceiling	
	Factory settings →P73			Yes	To return all the settings to factory default.
				No	

Checking various information

1. **Display the “Detail settings” menu.**

   The following information can be viewed.

Detail settings menu

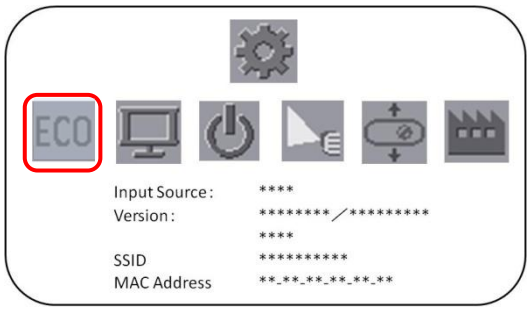


Information	Description
Input Source	The current input source will be displayed.
Version	The firmware version of the projector will be displayed.
SSID	SSID of the projector will be displayed.
MAC Address	MAC address of the projector will be displayed.

Setting the ECO mode

1. **Display the “Detail settings” menu.**

Detail settings menu

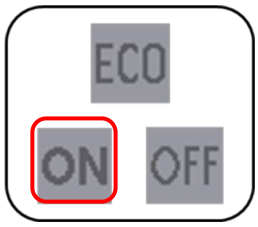


2. **Select the icon ECO with the < > buttons on the remote control or on the control panel.**

   Press the ↵ button to execute the selection.

   The “ECO mode setting” menu will be displayed.

ECO mode setting menu



3. **Select “ON” or “OFF” with the < > buttons on the remote control or on the control panel.**

Setting	Description
ON	To activate the ECO mode.
OFF	To cancel the ECO mode.

Press the ↵ button to execute the selection and return to the “Detail settings” menu.

Displaying the “Display setting” menu.

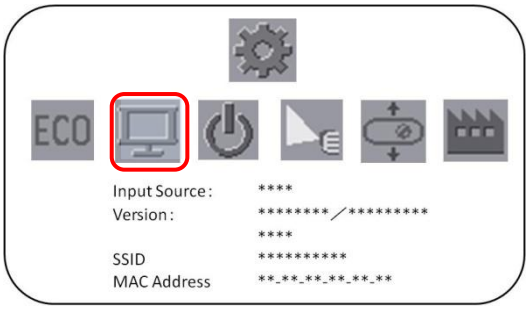
1. **Display the “Detail settings” menu.**

2. **Select the icon** **with the < > buttons on the remote control or on the control panel.**

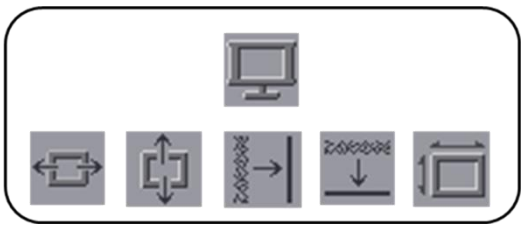
   Press the ↵ button to execute the selection.

   The “Display settings” menu will be displayed.

Detail settings menu



Display setting menu



※Display setting menu can be adjustable while RGB input.

Adjusting the horizontal position of the image

1. **Display the “Display setting” menu.**

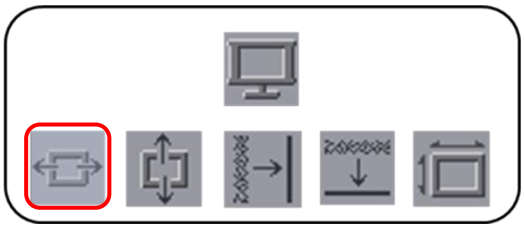
2. **Select the icon** **with the< > buttons on the remote control or on the control panel.**

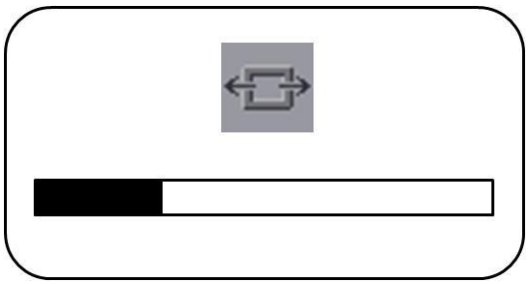
   Press the ↵ button to execute the selection.

3. **Adjust the position with the < > buttons on the remote control or on the control panel.**

   Press the ↵ button to execute the adjustment and return to the “Display setting” menu.

Display setting menu



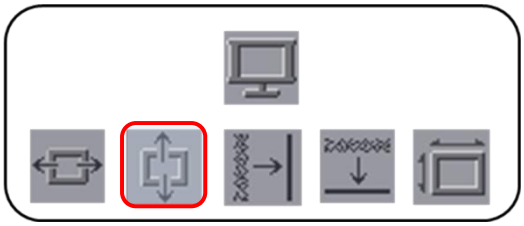


Adjusting the vertical position of the image

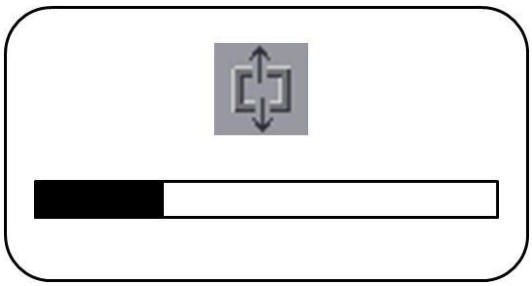
1. **Display the "Display setting" menu.**

2. **Select the icon with the< > buttons on the remote control or on the control panel.**
   Press the ↵ button to execute the selection.

Display setting menu



3. **Adjust the position with the < > buttons on the remote control or on the control panel.**
   Press the ↵ button to execute the adjustment and return to the "Display setting" menu.

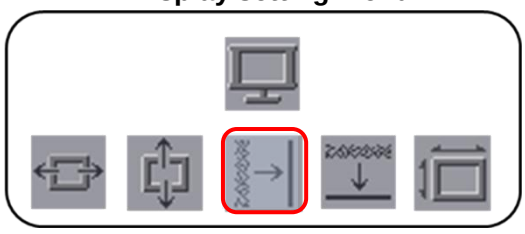


Adjusting the frequency

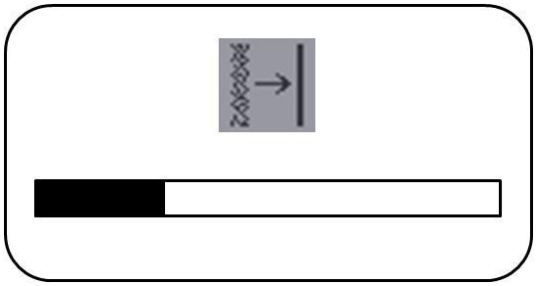
1. **Display the "Display setting" menu.**

2. **Select the icon with the< > buttons on the remote control or on the control panel.**
   Press the ↵ button to execute the selection.

Display setting menu



3. **Adjust the frequency with the < > buttons on the remote control or on the control panel.**
   Press the ↵ button to execute the adjustment and return to the "Display setting" menu.



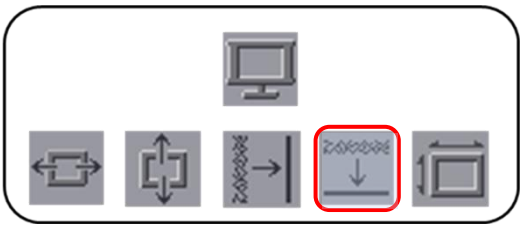
Adjusting the tracking

1. Display the “Display setting” menu.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection.

Display setting menu



3. Adjust the tracking with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the adjustment and return to the “Display setting” menu.

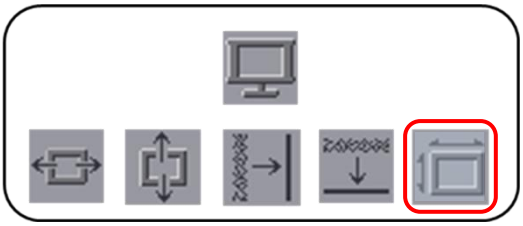
Selecting the aspect ratio

1. Display the “Display setting” menu.

2. Select the icon with the < > buttons on the remote control or on the control panel.

Press the ↵ button to execute the selection.

Display setting menu

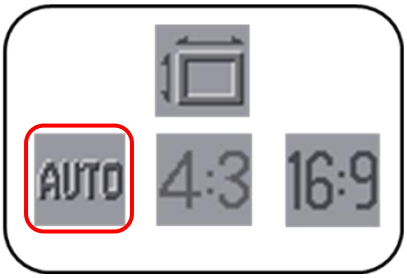


The “Aspect ratio setting” menu will be displayed.

3. Select the aspect ratio with the < > buttons on the remote control or on the control panel.

The following aspect ratio can be selected.

Aspect ratio setting menu



Icon	Description
AUTO	To display the input signal in its original aspect ratio.
4:3	To display the input signal in 4:3 aspect ratio.
16:9	To display the input signal in 16:9 aspect ratio

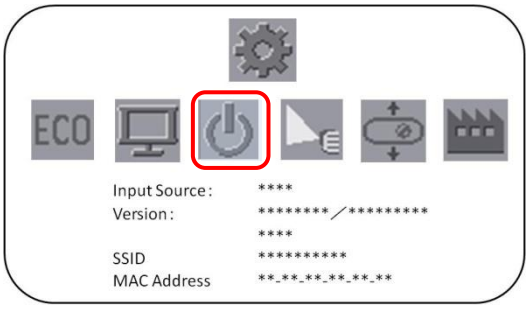
Press the ↵ button to execute the selection and return to the “Display setting” menu.

Note

■ The aspect ratio setting will not be saved. It will be reset to “AUTO” when the projector is restarted.

Setting the auto power off

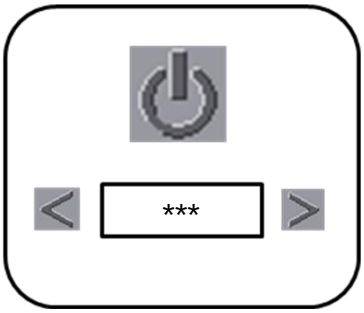
Detail settings menu



1. **Display the "Detail settings" menu.**

2. **Select the icon with the < > buttons on the remote control or on the control panel.**
   Press the ↵ button to execute the selection. The "Auto power off setting" menu will be displayed.

Auto power off setting menu



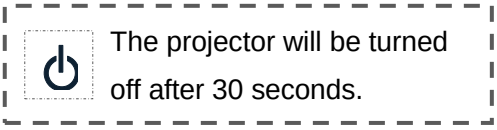
3. **Select the auto power off time with the < > buttons on the remote control or on the control panel.**
   The following auto power off time can be selected.

Auto power off time	Off (Disable the auto power off function)
	1 minute
	3 minutes
	5 minutes
	10 minutes
	20 minutes
	30 minutes
	60 minutes
	120 minutes
	180 minutes

Press the ↵ button to execute the selection and return to the "Detail settings" menu.

When the auto power off function is enabled, the projector will be turned off automatically after no operation is performed, either from the control panel or from the remote control, for a preset amount of time.

The message as shown in the right picture will be displayed 30 seconds before the projector is turned off automatically.



Selecting the projection mode

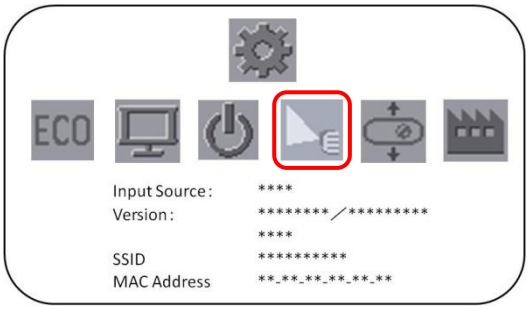
1. **Display the “Detail settings” menu.**

2. **Select the icon with the < > buttons on the remote control or on the control panel.**

   Press the ↵ button to execute the selection.

   The “Projection mode setting” menu will be displayed.

Detail settings menu



3. **Select “Front” or “Rear” with the < > buttons on the remote control or on the control panel.**

Icon	Mode	Description
	Front	To be used when the projector is placed in front of a screen.
	Rear	To be used when the projector is placed behind a screen.

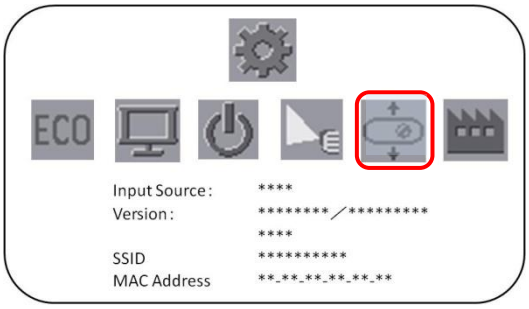
Projection mode setting menu

Press the ↵ button to execute the selection and return to the “Detail settings” menu.

Selecting the installation mode

1. **Display the “Detail settings” menu.**

Detail settings menu



2. **Select the icon with the< > buttons on the remote control or on the control panel.**

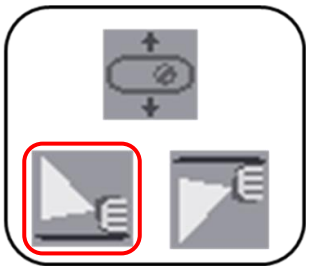
Press the ↵ button to execute the selection.

The “Installation mode setting” menu will be displayed.

3. **Select “Desktop” or “Ceiling” with the < > buttons on the remote control or on the control panel.**

Icon	Mode	Description
	Desktop	To be used when the projector is installed in the desktop mount position.
	Ceiling	To be used when the projector is installed to the ceiling.

Installation mode setting menu



Press the ↵ button to execute the selection and return to the “Detail settings” menu.

⚠ CAUTION

- Do not place the projector on an unstable cart, stand, or table. Doing so may cause the projector fall down or tip over.
- Installation work (such as ceiling suspension) should only be carried out by a qualified technician. If installation is not carried out correctly, the projector may fall over, causing injury or accident. Contact a qualified technician or your dealer for installation.

Returning to the factory settings

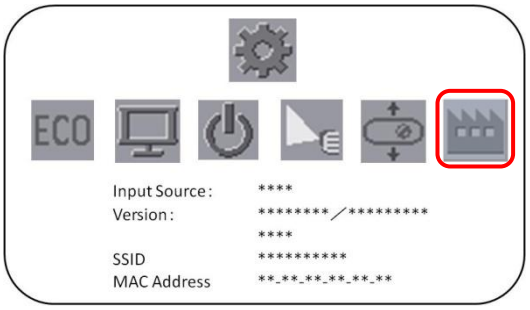
1. **Display the “Detail settings” menu.**

2. **Select the icon with the < > buttons on the remote control or on the control panel.**

   Press the ↵ button to execute the selection.

   The “Factory settings” menu will be displayed.

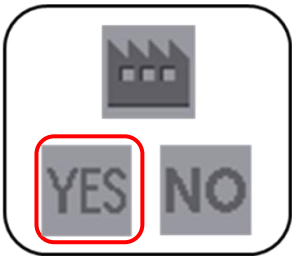
Detail settings menu



3. **Select “Yes” or “No” with the < > buttons on the remote control or on the control panel.**

Icon	Description
YES	To return to the factory settings.
NO	Do not return to the factory settings.

Factory settings menu



Press the ↵ button to execute the selection and return to the “Detail settings” menu.

Refer to “MAIN MENU” (Page53) for the default values for each setting item.

⚠ CAUTION

- "Return to factory settings" can be configured after powering on the projector and "Wireless LAN indicator" changed from flashing to lighting up.
- If it was operated while flashing by mistake, it may not be returned to factory settings properly, so please retry after lighting up.

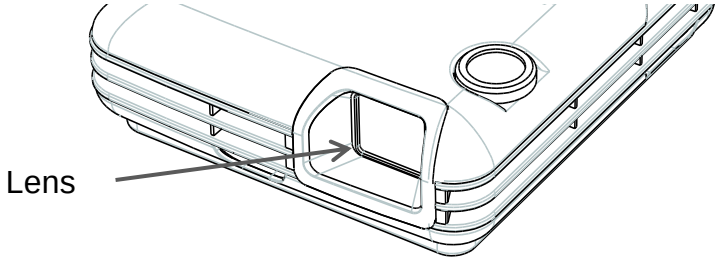
5 MAINTENANCE

This section describes the simple maintenance procedures you should follow to clean the lens, the cabinet and the remote control.

CLEANING THE LENS, THE CABINET AND THE REMOTE CONTROL

Cleaning the lens

1. Before starting the cleaning, turn off the projector, disconnect the power cord and then allow the cabinet to cool.
2. Wipe the lens with commercial lens-cleaning paper.



⚠ CAUTION

- Do not look into the lens during the projection. The strong light emitted from the lens may cause damage to your eyes.
- The lens surface is easily damaged. Do not rub the lens with a hard material or hit it.

Cleaning the cabinet and the remote control

<Cleaning the cabinet>

1. Before starting the cleaning, turn off the projector, disconnect the power cord and then allow the cabinet to cool.
2. Gently wipe the cabinet with a soft cloth like gauze. If the cabinet is particularly dirty, soak the soft cloth in water with a small amount of neutral detergent in it, squeeze the cloth very well, and then wipe the cabinet. After cleaning, gently wipe the cabinet with a dry cloth.

<Cleaning the remote control>

Wipe the dirt off the remote control with a dry soft cloth.

⚠ CAUTION

- Do not use solvents such as alcohol, benzene or thinner as they may mar the finish of the case, causing electric shock.
- Do not apply volatile materials such as insecticide on the cabinet. Do not leave a rubber, sticky tape or vinyl product in prolonged contact with it. Otherwise, the surface finish will be deteriorated or the coating may be stripped off.
- The surface of the cabinet is easily scratched. Do not rub the cabinet with a hard material or hit it.

CLEANING THE INSIDE OF THE PROJECTOR

Continued use with dust inside may result in fire, electric shock, malfunction or deteriorated image. For the safe use of the projector, have it cleaned and inspected by your dealer at least once a year. Ask you dealer for the maintenance fee.

⚠ CAUTION

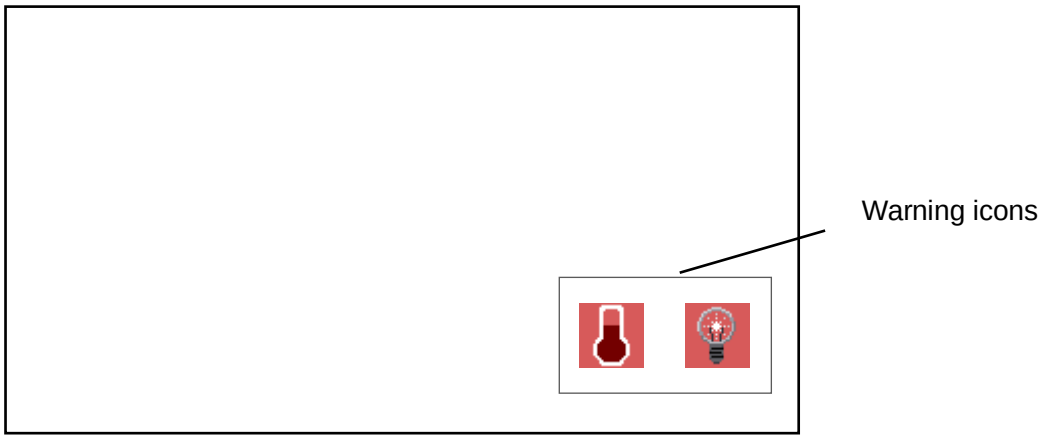
- Do not clean the inside of the projector by yourself. There are high-voltage components inside and you could injure yourself or damage the projector.

6 TROUBLESHOOTING

INDICATOR ICONS

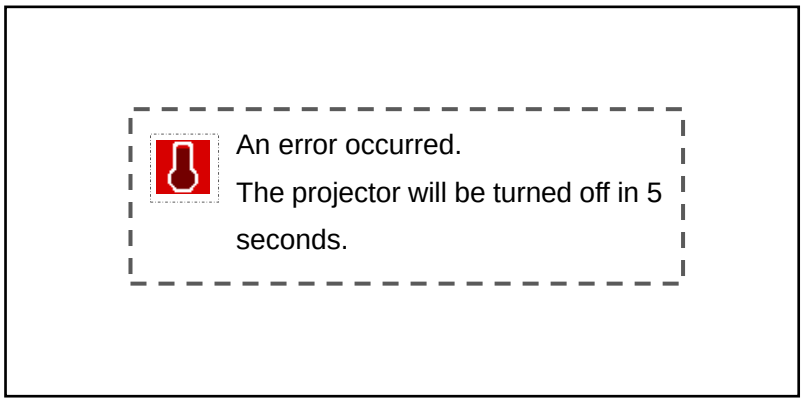
During use of the projector, the following icons may appear at the bottom right of the screen to warn you or indicate errors. When the icon appears, follow the instructions described in the table below.
If the same icon still appears after following the above instructions, contact your dealer.

Example of the warning indication



Icon	Description	Solution
Temperature warning	The internal temperature has been increased. This icon will be displayed for 10 seconds every 5 minutes.	Turn off the projector immediately and allow the projector to cool down for at least 30 minutes. Make sure the followings and turn on the projector: - The ventilator is not blocked by objects or in any way obstructed. - The ventilator is not covered with dust. - The peripheral temperature is not exceeding 35℃.
LED brightness degradation	The brightness of the LED is decreased. It is the time to replace the LED lamp. If you continue to use the projector without replacing the lamp, the brightness will decrease continuously. This icon will be displayed once after the projector is turned on.	Contact your dealer for repair.

Example of the error indication



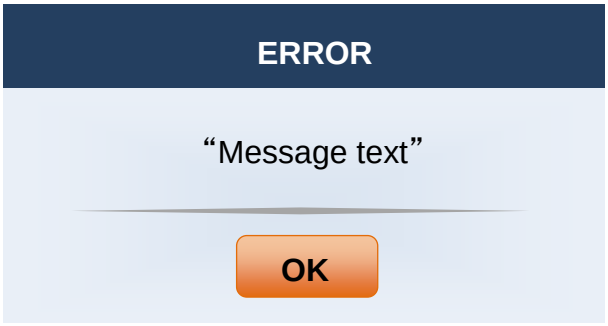
Icon	Description	Solution
Temperature error	The internal temperature has been increased. The projector will be turned off in 5 seconds.	Turn off the projector immediately and allow the projector to cool down for at least 30 minutes. Make sure the followings and turn on the projector: - The ventilator is not blocked by objects or in any way obstructed. - The ventilator is not covered with dust. - The peripheral temperature is not exceeding 35℃.
FAN error	There is a problem with the internal fan. The projector will be turned off in 5 seconds.	Turn off the projector immediately and allow the projector to cool down for at least 30 minutes. Make sure the followings and turn on the projector: - No foreign objects are inserted between the rotating fan blades. - There are no magnetic objects near the projector.

⚠ CAUTION

- Using the projector in places where the temperature is high or where there is a lot of dust or smoke, or using it continuously for long hours for business purposes may deteriorate the performance or the quality of the projector after less than 1 year of use depending on the life of the components.
- In such cases, contact your dealer for chargeable repair.

LIST OF USB MENU ERROR MESSAGES

Sometimes you will see a message like below picture while you are using the USB viewer.



(Title text and OK button may vary depends on the situation.)

Below is a list of error messages for the USB menu.
Follow the instructions described in the list when the error message is displayed.

Error message	Description/Solution	Related page
Unsupported file type!	The files with unsupported format cannot be played or displayed. Check the format and version of the file.	→P42
Unsupported file format!		
Unsupported file or damaged file.	Check the format and version of the file. Also, change the file to be played or displayed.	→P42
Not enough free space. Delete unnecessary files.	Delete unnecessary files in the USB flash drive and retry.	-
File is damaged!	The damaged files cannot be played or displayed. Change the file to be played or displayed.	-
No file was found.	Check if the USB flash drive is inserted correctly. Be aware that some USB flash drive may not be recognized.	→P30
No JPEG photos in the folder to display.	Only JPEG or BMP files can be displayed with the projector. Check the format and version of the file.	→P42
An error occurred. The file was closed.	Remove the USB flash drive and insert it again. Then retry.	→P30
Translation failed. Unsupported content or file corruption.	Make sure supported files and versions. Change the data to be projected.	→P42
Out of memory. Some content may not rendered correctly.	Lack of memory. Restart the system.	-

WARNING INDICATOR DISPLAY

The warning indicators indicate the status of the internal temperature and the internal fan, by flashing or by lighting.

＜Upper part of the Control panel＞

Power indicator　Wireless LAN indicator　Warning indicator

⚠ Warning indicator (Red)		Solution
On	An abnormal temperature inside the projector is detected.	Turn off the projector immediately and allow the projector to cool down for at least 30 minutes. Make sure the followings and turn on the projector: - The ventilator is not blocked by objects or in any way obstructed. - The ventilator is not covered with dust. - The peripheral temperature is not exceeding 35℃.
Off	The projector is in normal condition.	–
Flashing *Flashing every 0.25 seconds.	There is something wrong with the internal fan.	Turn off the projector immediately and allow the projector to cool down for at least 30 minutes. Make sure the followings and turn on the projector: - No foreign objects are inserted between the rotating fan blades. - There are no magnetic objects near the projector.
Flashing *Flashing every second.	Either an abnormal rise of temperature inside the projector is detected or the brightness of the LED is decreased.	The internal temperature is in a rise or the state to which the light volume of LED fell. Follow the instructions described in “INDICATOR ICONS” (Page76).

COMMON PROBLEMS AND CHECK ITEMS

The following problems may not be caused by malfunction of the projector. Check the items in the table below before requesting a repair service.
If the problem still persists, contact your dealer.

Problem	Check item	Related Page
No power.	➡ Is the power cord connected to the outlet correctly?	→P27
	➡ Is there electricity to the outlet?	→P27
	➡ Is the AC adapter connected correctly?	→P27
	➡ Is the power code damaged?	→P27
	➡ Is the temperature of the projector too high?	→P76, 79
	➡ If the temperature of the projector is too high, the projector does not turn on for protection.	→P76, 79
Power turns off automatically.	➡ Is the warning icon displayed before the projector is turned off?	→P76
	➡ Is the indicator flashing?	→P79
	➡ Is the auto power off function enabled? (Default setting：180 minutes)	→P70
No image.	➡ Is the correct input source selected?	→P35, 36, 55
	➡ Is the projector in the blank screen mode?	→P41
	➡ Is the cable connected to the input terminal correctly?	→P28, 29
	➡ Is the video signal output from the connected video source?	→P28
	➡ Is the contrast setting set to minimum?	→P60
	➡ Is the input signal supported by the projector?	→P8585
	➡ Is the file to be displayed or played with the USB viewer supported by the projector?	→P42
Image is dark.	➡ Is the brightness of the contrast adjusted correctly?	→P60
	➡ Is the projector in the ECO mode?	→P65
	➡ Is the LED lamp approaching to the end of its life time?	→P76, 79

Problem	Check item	Related Page
Image is distorted.	➡ Is the projector installed correctly?	→P23
	➡ If there is keystone distortion, perform the keystone correction.	→P38, 57
Image is blurred.	➡ Is the lens correctly adjusted?	→P37
	➡ Is the projector placed correctly to the screen?	→P23
	➡ Is the lens dirty?	→P74
	➡ Is there condensation on the lens?	→P74
	➡ Is the distance between the projector and the screen within the adjustable range of the focus?	→P23
Image is unstable.	➡ Is the video cable connected correctly?	→P28, 29
	➡ Is the video cable damaged?	→P28, 29
	➡ If you are using analog RGB input, try to adjust the display setting from the menu.	→P66, 67, 68
Bright dots or black dots in the image.	➡ This is a common problem peculiar to the display device. This is not a malfunction.	
Vertical stripes in the image.	➡ This is due to the interference with the screen. This is not a malfunction.	→P37
	➡ If you are using analog RGB input, try to adjust the display setting from the menu.	→P66, 67, 68
Color is uneven.	➡ This is due to the diffraction of light which is peculiar to the projector. This is not a malfunction.	
No sound.	➡ Is the volume set to mute?	→P41
	➡ Is the volume adjusted to low?	→P40
	➡ Is the sound output from the connected video source?	

Problem	Check item	Related Page
Remote control cannot be operated.	➡ Is there enough remaining battery for the remote control? ➡ Is the polarity of the battery set correctly? ➡ Is there any obstacle between the IR transmitter of the remote control and the IR receiver of the projector? ➡ Is the remote control used within its operating range? ➡ Is the IR transmitter aimed at the IR receiver? ➡ Is the remote control receiving influence from the fluorescent light?	→P20 →P20 →P22 →P22 →P22 →P22
Indicator flashes.	➡ Refer to the list of indicators.	→P79
When using the USB viewer, messages appear.	➡ Please look at a USB menu error message list.	→P78
When using the USB viewer, Office files appear differently from PC applications	This is due to the limitation of the viewer installed in BOXi. *When the display is different, converting the Office file to PDF file will allow it to be displayed properly.	→P87

Note

■ Refer to the separate “Instruction Manual - Network Operation Guide” for the operations of a Wireless LAN (WiFi).

7 SPECIFICATIONS

SPECIFICATIONS

MODEL		MP-350
Display technology		Single-chip DLP
Display device	Size	0.45 type
	Resolution	1,280×800 (WXGA)
	Aspect ratio	16:10
Lens	Focus adjustment	Manual
	Focal length	f = 9.05mm
	F number	F 2.04
Lamp		3 LED (R,G,B)
Screen size (projection distance)		25 ~ 68 inches (0.48 ~ 1.33 m)
Projection method (can be selected from the menu)		Front/ Rear/ Desktop/ Ceiling
Brightness		300 lm (ANSI)
Contrast ratio (full white/ full black)		1,000:1 (JIS X 6911) (10,000:1 According to our company's measurement standard.)*
Color reproduction		Full color 16,770,000 colors
Audio output		1W monaural speaker
In/out terminals	RGB IN	Mini D-sub 15p (female) x1 RGB : 0.7Vp-p / 75Ω positive polarity H/V Sync : 4.0Vp-p / TTL positive/negative polarity
	HDMI	HDMI Type A ×1 (HDCP compliant)
	USB	USB Type A ×1 (USB 2.0 compliant)
	WiFi	IEEE802.11b/g/n (Ad-Hoc mode)
Operation environment	Temperature	5℃ ~ 35 ℃
	Humidity	85% (max.)
	Storage temperature	-20℃~+60℃
	Storage humidity	90% (max.) (no condensation)
Power	AC adapter	100~240V, 50~60Hz
	Power consumption	65.4W (DC12V, 5.45A) at ECO mode OFF
		35W at ECO mode ON
External dimensions[mm]		132(W) x 143(D) x 43(H* including the rubber foot)
Weight		500g

* The contrast ratio between the maximum white luminance and the minimum black luminance for the projection system.

Remote control

Power	DC 3V (Button battery: CR2016)
Operating range	6m
External dimensions	45 mm x 70.5 mm x 5 mm
Weight	25g (including battery)

Supplied accessories

- Remote control *with a battery inserted ····· 1pce
- Power cord ····· 1pce
- AC adapter ····· 1pce
- Protective cover *with hook and loop fastener (2pcs) ····· 1pce
- Important safeguard ····· 1pce
- Warranty card ····· 1pce
- CD-ROM *quick start guide included ····· 1pce

LIST OF COMPATIBLE SIGNALS

The following system modes are available with the projector.

The projector will detect the input signal and select the appropriate system mode automatically.

Computer signal input format (for both RGB and HDMI)

Signal mode	Resolution (H x V)	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 350	640 × 350	31.5	70.1
TEXT (70Hz)	720 × 400	37.9	70.0
TEXT (85Hz)	720 × 400	37.9	85.0
VGA (60Hz)	640 × 480	31.5	59.9
640 × 480 (67Hz)	640 × 480	35.0	66.7
VGA (72Hz)	640 × 480	37.9	72.8
VGA (75Hz)	640 × 480	37.5	75.0
VGA (85Hz)	640 × 480	43.3	85.0
SVGA (56Hz)	800 × 600	35.2	56.3
SVGA (60Hz)	800 × 600	37.9	60.3
SVGA (72Hz)	800 × 600	48.1	72.2
SVGA (75Hz)	800 × 600	46.9	75.0
SVGA (85Hz)	800 × 600	53.7	85.1
832 × 624 (75Hz)	832 × 624	49.7	74.5
XGA (60Hz)	1024 × 768	48.4	60.0
XGA (70Hz)	1024 × 768	56.5	70.1
XGA (75Hz)	1024 × 768	60.0	75.0
XGA (85Hz)	1024 × 768	68.7	85.0
1152 × 864 (75Hz)	1152 × 864	67.5	75.0
1152 × 870 (75Hz)	1152 × 870	68.7	75.1
W-XGA(60Hz)	1280 × 768	47.7	60.0
1280×800 (60Hz)	1280 × 800	49.7	60.0
1280×800 (75Hz)	1280 × 800	62.8	74.9
1280×800 (85Hz)	1280 × 800	71.6	84.8
1280×960 (60Hz)	1280 × 960	60.0	60.0
1280×960 (85Hz)	1280 × 960	85.9	85.0
SXGA (60Hz)	1280 × 1024	64.0	60.0
SXGA (75Hz)	1280 × 1024	80.0	75.0
1360×768(60Hz)	1360 × 768	47.7	60.0

SXGA+ (60Hz)	1400 × 1050	65.3	60.0
WXGA+(60Hz)	1440 × 900	55.9	59.9
WXGA+(75Hz)	1440 × 900	70.6	75.0
WSXGA+(60Hz)	1680 × 1050	65.3	60.0

Video signal input format (for both RGB and HDMI)

Signal mode	Resolution (H x V)	Horizontal frequency (kHz)	Vertical frequency (Hz)
480i	720 × 480	15.7	60.0
480p	720 × 480	31.5	60.0
576i	720 × 575	15.6	50.0
576p	720 × 575	31.3	50.0
720p	1280 × 720	37.5	50.0
720p	1280 × 720	45.0	60.0
1080i	1920 × 1080	28.1	50.0
1080i	1920 × 1080	33.7	60.0
1080p	1920 × 1080	56.3	50.0
1080p	1920 × 1080	67.5	60.0

Note

- An image with higher resolution will be compressed and displayed
- When the image is compressed, the thickness of the characters or lines may not be uniform or the color may be blurred.
- Depending on the computer used, some adjustments may be needed. Refer to “DETAIL SETTINGS” (Page63) for details.
- If the video signal is input to RGB IN terminal, the image may not be displayed in correct image range or in correct aspect ratio. If that happens, adjust the setting from the display setting menu or change the resolution of the connected video source. Refer to “DETAIL SETTINGS” (Page63) for details.
- The projector supports only separate sync. RGB signal.
- Images may not be displayed properly depends on connected devices.

8 Appendix

Converting an Office file to a PDF file

When using the USB viewer function in BOXi, Office files may appear differently from the display in PC applications. In this case, converting the Office files to PDF files will allow them to be displayed properly.
This Chapter explains the conversion of Office files to PDF files.
Adobe Acrobat needs to be installed first.
Although the explanation is for PowerPoint files here, conversion of other Office files is similar.

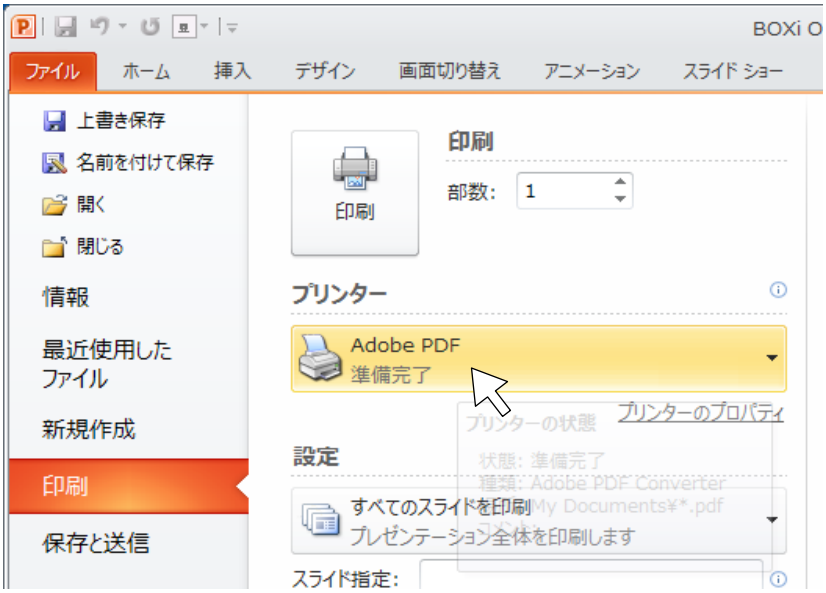
⚠ CAUTION

- Not all Office files can be converted.
- Display of the contents in PDF files created using applications other than Adobe Acrobat cannot be guaranteed.
- Please refer to the attachment [IMPORTANT: For customers using the USB Viewer function] for the limitation of the USB viewer function in

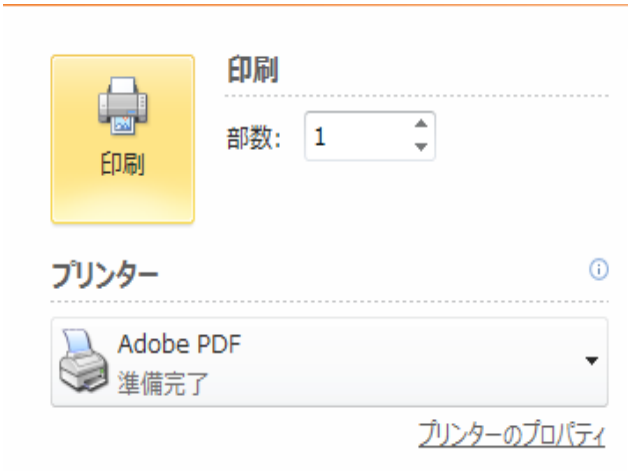
<For Microsoft PowerPoint: 2010>

1. Start up Microsoft PowerPoint and open the Office file to be converted.
2. Select [Print] from the file menu.

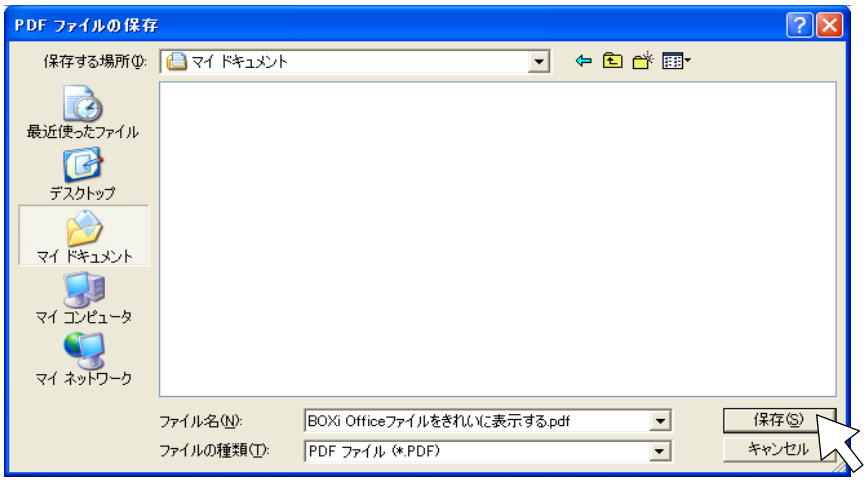
3. Select [Adobe PDF] from the printer menu.



4. Click the [Print] button to commence printing.



5. Assign a filename and store the file under [PDF File Storage Location]



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9 WARRANTY AND AFTER SALES SERVICE

[LIMITED WARRANTY AND REPAIR]

■ WARRANTY PERIOD

We offer you a 1 year limited warranty on our product, from the date of the original purchase (“Warranty Period”).

Keep the warranty card included in the product package in a safe place.

Faults reported outside of the Warranty Period are subject to a chargeable repair.

■ WARRANTY COVERAGE

This warranty shall apply only when the projector is used under the conditions and in the manner intended by ELMO as specified in the instruction manual during the Warranty Period.

■ EXCLUSIONS AND LIMITATIONS

This warranty does not cover the following:

(1) Failure or damage caused by misuse, improper application, wrong operation other than specified in the instruction manual;

(2) Failure or damage resulting from repair, modification or cleaning by disassembling by someone other than authorized service center;

(3) Failure or damage caused by mud, sand, water, dropping or impact;

(4) Failure or damage caused by fire, salt, gas, earthquake, wind, flood, environmental pollution, lightning, electrical surges or other natural disasters;

(5) Failure or damage that occurs in shipment or during transportation after the purchase or the failure or damage caused by dropping or improper storage after the purchase;

(6) When the warranty card is lost; and

(7) If the information such as the name of the shop and the date of purchase is altered.

■ REPAIR CONDITIONS

(1) The warranty repair is available only for products manufactured by ELMO.

(2) We do not provide on-site repair service. Faulty units have to be brought to our customer service or to be sent to our customer service at customer’s expenses.

(3) Contact our customer service (described below) when you need repair service.

[OTHER CUSTOMER SERVICE]

■ **Customer service**

You can inquire the following inquiries about the projector to our customer service;

(1) About repair service

(2) About instruction of use, sale or other issues

ELMO CO., LTD.

6-14, Meizen-cho, Mizuho-ku
Nagoya, 467-8567, Japan

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